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**DOCUMENTS**  
**OF THE**  
**CITY OF BOSTON,**  
**FOR THE YEAR 1892.**

**IN FOUR VOLUMES.**

**VOLUME II.**  
**CONTAINING DOCUMENTS FROM NO. 20 TO NO. 40, INCLUSIVE.**

**Published by Order of the City Council.**



**BOSTON:**  
**ROCKWELL & CHURCHILL, CITY PRINTERS.**  
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[DOCUMENT 20 — 1892.]



ANNUAL REPORT  
OF THE  
LAMP DEPARTMENT,  
FOR THE YEAR 1891.

BOSTON, Feb. 1, 1892.

HON. NATHAN MATTHEWS, JR.,

*Mayor of the City of Boston:*

SIR: Acting in accordance with an order of the City Council, passed December 31,—viz., that every officer and board in charge of a department make and transmit to the Mayor immediately after the thirty-first day of January, 1892, the next annual report of the department, and include in the report a statement of the acts and doings and receipts and expenditures of the department from and including the first day of January, 1891, to and including the thirty-first day of January, 1892—I have the honor to submit for your consideration the annual report of the Lamp Department for 1891.

It contains a tabulated statement of the expenses of the department during the year 1891; tables showing the annual cost of burning the number of electric, gas, oil, and naphtha lamps located within the city of Boston on the fifteenth of January last, at the present rates for material and lighting;

also an inventory of property belonging to the department not in use on the public streets, and such other information connected therewith as will be of public interest.

### GAS-LIGHTING.

The existing contracts for supplying gas for the public street-lamps were made with the several gas companies on July 2, 1888, for a term of five years, at the following rates :

<sup>1</sup> Boston Gas-Light Company . . .	\$1.00 per M feet.
<sup>1</sup> South Boston Gas-Light Company . . .	1.50 " " "
<sup>1</sup> Roxbury Gas-Light Company . . .	1.50 " " "
<sup>2</sup> Dorchester Gas-Light Company . . .	1.80 " " "
East Boston Gas-Light Company . . .	1.60 " " "
<sup>3</sup> Brookline Gas-Light Company . . .	1.85 " " "
Jamaica Plain Gas-Light Company . . .	1.85 " " "
Charlestown Gas-Light Company . . .	1.55 " " "

The following is the form of the contract executed by the city with each of the companies :

The \_\_\_\_\_ a corporation duly established under the laws of the Commonwealth of Massachusetts, first party, and the city of Boston, second party, on this second day of July, 1888, agree —

*First.* That this agreement shall take effect on the second day of July current, and shall continue until the second day of July in the year eighteen hundred and ninety-three; and shall continue thereafter until a new agreement shall be made by the parties, or the first party, or the Superintendent of Lamps of said city, shall in writing notify the other party that this agreement is terminated.

*Second.* The first party shall furnish all the gas required for lighting the public lamps now located, and those which the second party may hereafter locate, along the lines of the mains of the first party, as now or hereafter laid, during such hours as said Superintendent shall direct (but each four-foot burner shall be kept burning at least thirty-eight hundred and twenty-eight hours per annum); shall furnish and put down all new service-pipes required for said lamps, with a regular fall towards the street-main, and keep in good repair the portions of all service-pipes below ground, and use only wrought-iron pipes not less than one inch in diameter, and wrought-iron or malleable-iron couplings, bends, and elbows for said new pipes and repairs; shall furnish and apply to said lamps automatic regulator burners, each delivering not less than four cubic feet of gas per hour; shall furnish such quantity of alcohol, not exceeding seventy gallons per year, as may be necessary to keep the pipes clear from obstructions; shall, within a reasonable time after being required by said Superintendent, change any burner delivering

<sup>1</sup>These companies are now consolidated under the management of the Bay State Gas Company.

<sup>2</sup>Reduced from \$1.80 per M feet to \$1.50, Oct. 15, 1890.

<sup>3</sup>Supplying the territory of Brookline annexed to Boston, and the Brighton District.

four cubic feet of gas or more per hour, to a burner delivering such larger amount of gas as said Superintendent shall require, and when a burner is found, on a test made by one party in the presence of the other, to deliver more than one-tenth of a cubic foot less than four cubic feet of gas per hour, shall change it so that it will deliver at least four cubic feet per hour; and may, at any time when not interfering with the regular burning of the lamp, remove and test any burner.

*Third.* The second party shall, monthly, pay to the first party dollars for each thousand cubic feet of gas furnished; also all the reasonable expenses actually incurred for labor and materials in furnishing and putting down said service-pipes, and in keeping in good repair the portions of said pipes below ground; also one-half of the cost actually incurred in furnishing and applying burners to said lamps, in removing and cleaning the burners once in each year, and changing the size of the burners under the requirements of said Superintendent.

*Fourth.* The said second party, by the said Superintendent, shall take the exclusive care of the burners and the portions of the service-pipes above the ground; shall light and extinguish said burners punctually according to printed tables to be furnished by said Superintendent; shall make written returns to the first party on Friday of each week, and on the fifteenth day of each month, of the number of burners lighted each night, and the time of beginning to light and beginning to extinguish the same; shall give immediate notice to the first party of any obstruction or leakage of gas in the pipes below ground, coming to the knowledge of said Superintendent; shall use a suitable brush, and no metallic cleaner, to clean the slot of lava-tipped burners; and shall not permit any employee of the city to open the regulator of any burner for any purpose whatever.

*Fifth.* In case of any alteration of this contract, so much thereof as is not necessarily affected by the change shall remain in force upon the parties hereto, and no payment for any work done under such alteration shall be made until the completion of the whole contract; and the adjustment and payment of the bill then rendered for such work shall release and discharge the city from any and all claims or liability on account of any work performed under this contract or any alteration thereof.

### HOURS OF BURNING.

The public lamps are burned every night throughout the year, — a total of three thousand eight hundred and twenty-eight hours.

### GAS BURNERS.

The public gas lamps, of which there are 8,924 in service, are fitted with an automatic regulator glycerine burner, adopted in 1879, and still giving general satisfaction. They consume four feet of gas each per hour.

### GAS LANTERNS.

The lanterns used by the department are made of 14-oz. copper, tinned on both sides, and are of the most substantial and durable character. All used for burning gas are arranged so that the name and number of the street may be placed therein.



### LARGE GAS LANTERNS.

At the commencement of the year there were 36 large gas lanterns in use, consuming from 15 to 30 feet of gas per hour; 19 of these have been discontinued, and it is desirable to discontinue the remaining 17 as soon as practicable, substituting electric light for the same, it being less expensive.

These lanterns are located as follows :

#### *City Proper.*

Six on Boston Common, 30 feet per hour.

Four on Boston Common, 15 feet per hour.

One on Washington street, at Cathedral, 15 feet per hour.

#### *Roxbury.*

One on Vernon street, at Catholic church, 30 feet per hour.

One on Humboldt avenue, cor. Crawford street, 15 feet per hour.

One on Seaver street, cor. Walnut avenue, 15 feet per hour.

One on Cedar, cor. Highland street, 15 feet per hour.

#### *South Boston.*

Two on West Sixth street, near C street, 15 feet per hour.

### OIL LAMPS.

The oil lamps, of which there are 2,781 in use, are distributed over the city in locations not covered by the mains of the several gas companies.

It is likely that a large number of those now in use may be changed to gas during the ensuing year, but the growing sections of the city may demand a corresponding extension of the oil service.

The oil used in these lamps during the warm season is what is known as 115° fire test, and in cold weather what is known as 150° fire test, the price of which has fluctuated from 6 to 7½ cents per gallon — averaging for the year 6¼ cents per gallon.

The founts from which it is burned are well adapted for public use. They are stamped "City of Boston Lamp Department," and the "Fireside" B burner is used in them.

The cost of lighting, care, and supplies<sup>1</sup> for these lamps for the past year has been \$15.45 each.

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<sup>1</sup> Includes oil, chimneys, burners, wicks, and founts.

## NAPHTHA LAMPS.

There are 80 naphtha lamps, in which naphtha of 76° specific gravity is used.

## ELECTRIC LIGHTS.

The electric lights, 1,447 in number, located in this city are "arc lights," of what is commercially known as 2,000-candle power light, and are supplied by the Boston Electric Light Company, the Charlestown Gas Company, and the Brookline Gas-Light Company. On Jan. 7, 1890, contracts were made with the Brookline Gas-Light Company and the Charlestown Gas Company to furnish light at forty cents per light per night for a term of five years, beginning with the above-named date.

The following is the form of contract :

## ELECTRIC LIGHT CONTRACT.

This agreement, made the seventh day of January, A.D. 1890, by and between the Brookline Gas-Light Company, a corporation established by law, having a usual place of business in Boston, Massachusetts, of the first part, and the City of Boston, of the second part :

Witnesseth, that the said company agrees to furnish electric lights, of such candle-power as will be obtained when each arc lamp in the circuit or circuits shall give 9½ to 10 amperes, or electrical units at a voltage or electrical pressure of 45 to 50 volts, with the best quality and size of carbons adapted to said lights, and all lamps furnished shall give a steady and uniform light without undue flickering or hissing, and to the satisfaction and acceptance of the Superintendent of Lamps of said city, in such numbers, and such places in the streets, lanes, parks, or other public places in said city, as may be legally directed from time to time, and keep the same lighted to the satisfaction of said Superintendent, from sunset to sunrise of each and every night during the continuance of this contract.

And said company further agrees to indemnify and save harmless said City of Boston from and against all claims and demands for damages, in contract or tort, costs, expenses, or compensation for or by reason of the erection, maintenance, or use of any of said lights, or of the wires or apparatus connected therewith; and also against any and all claims by reason of any infringement of any patent right in the use of said lights, or the apparatus or machinery connected therewith.

The said City of Boston agrees to pay for said lights, furnished and lighted as aforesaid, to the satisfaction of said Superintendent, at the rate of forty cents per light for every whole night the same are lighted; and at the same rate per hour of lighting, where, by order of said Superintendent of Lamps, such lights are lighted for a portion of the night only, and to make payment thereof monthly.

It is also understood and agreed that, in case of the failure or neglect of said company to furnish and keep lighted said lights, or any of them, as above agreed, there shall be forfeited and deducted from the sums to be paid by the City of Boston under this contract, an amount for each light not so lighted, and kept lighted, equal to double the rate to be paid for lighting the same under this contract, as above provided.

The changes during the past year have been as follows :

*Gas Lamps.*

	Increase.	Decrease.	
City Proper . . . . .	—	184	
Roxbury . . . . .	—	92	
West Roxbury . . . . .	204	—	
Dorchester . . . . .	—	45	
South Boston . . . . .	—	119	
East Boston . . . . .	—	60	
Charlestown . . . . .	—	51	
Brighton . . . . .	—	9	
Chelsea (Meridian-street bridge) . . . . .	—	3	
Net decrease . . . . .			359

*Oil Lamps.*

City Proper . . . . .	5	—	
Dorchester . . . . .	13	—	
West Roxbury . . . . .	—	93	
South Boston . . . . .	—	31	
East Boston . . . . .	—	43	
Brighton . . . . .	—	27	
Net decrease . . . . .			176

*Naphtha Lamps.*

South Boston . . . . .	—	19	
Decrease . . . . .			19

*Electric Lights.*

City Proper . . . . .	62	—	
Roxbury . . . . .	53	—	
Dorchester . . . . .	59	—	
West Roxbury . . . . .	20	—	
South Boston . . . . .	54	—	
East Boston . . . . .	24	—	
Charlestown . . . . .	23	—	
Brighton . . . . .	27	—	
Increase . . . . .			322
Aggregates . . . . .	544	776	
Total net decrease . . . . .			232

The number of gas lamps put up during the past year was 196.

The number of oil lamps put up was 244.

The number of naphtha lamps put up was 3.

Also 280 oil lamps have been changed to gas, in accordance with an understanding with the several gas companies that wherever they extend their mains the public lamps will be connected thereto.

During the year, 322 electric lights have been erected.

The total number of new lamps of all kinds set up during the year was 765.

## LAMPS DISCONTINUED.

Gas . . . . .	824
Oil . . . . .	132
Naphtha . . . . .	22
Large gas lamps . . . . .	19
Total . . . . .	997

## BROKEN LANTERNS.

The number of lanterns which was reported by the police as broken the past year was . . . . .

Reported by the lamplighters . . . . .	10,138
Taken out by repairers, without report . . . . .	1,250

Total . . . . . 11,863

The lanterns are repaired by the department, at its workshop on Albany street, where there are eight men permanently employed.

All the cost of men employed at the shop, repainting lanterns, posts, and brackets, carting of posts, oil, and lanterns, stock used in repairing, horse-keeping, etc., is included in the item in the schedule of expenditures for repairing lanterns.

## EMPLOYEES.

The number of men employed is 166, viz. :

One superintendent, 1 clerk, 1 assistant clerk, 1 messenger, 154 lighters, and 8 men in the repair-shop.

The men (126 in number) who light and care for the gas lamps are distributed as follows :

City Proper . . . . .	38 men
Roxbury . . . . .	23 "
Dorchester . . . . .	21 "

<sup>1</sup> Seventeen of these lamps were 30-ft. burners and two were 15-ft. burners, requiring for their yearly maintenance an average of \$162.44 each; by the substitution of electric light the cost of maintenance is \$146 each.

South Boston	.	.	.	.	9 men
East Boston	.	.	.	.	9 "
Charlestown	.	.	.	.	7 "
West Roxbury	.	.	.	.	13 "
Brighton	.	.	.	.	6 "

They are paid at the rate of \$2 per day.

The men who light and care for the oil and naphtha lamps are 28 in number, and are distributed as follows :

City Proper	.	.	.	.	1 man
South Boston	.	.	.	.	3 men
East Boston	.	.	.	.	1 man
Dorchester	.	.	.	.	7 men
West Roxbury	.	.	.	.	12 "
Brighton	.	.	.	.	3 "
Naphtha (South Boston)	.	.	.	.	1 man

They are paid at the rate of 3½ cents per lamp per day.

The gas lamps are lighted by the use of the Bartlett patent torch, the city having purchased the right to manufacture and use the same.

#### LAMPLIGHTERS' DUTIES.

The lamplighters are required to light and extinguish the lamps in their charge promptly at the time designated on the time-card, one hour only being allowed for each; to keep the lanterns clean and in order at all times; to report at this office every defect in either lanterns or fixtures at or before 9 A.M.; to keep the stopcocks clean and properly oiled, the burners in order, and the pipes clear from water or frost. Gas-leaks are to be reported at this office and at the office of the gas company when discovered, and a written statement is also required on each Thursday morning of the work performed the previous week. Any neglect in the care of lanterns or fixtures is considered sufficient cause for immediate dismissal.

All men employed to light the lamps are furnished with the necessary ladders, torches, cans, hooks, etc., by the city.

The men who are employed to light and care for the oil lamps find it necessary to devote about all their time to properly perform the work for which they are employed; and in many cases are obliged to employ assistance, and keep a horse and wagon at their own expense.

## THE FINANCIAL CONDITION OF THE DEPARTMENT.

The balance of the appropriation on hand from  
1890, on the 1st of January, 1891, was . \$182,089 67  
There was expended during the remainder of  
the financial year . . . . . 157,847 31

The balance unexpended and transferred to  
other appropriations was . . . . . \$24,242 36

The appropriation for the financial year (nine  
months) ending on the 31st January, 1892,  
was . . . . . \$441,500 00  
Amount expended . . . . . 420,179 21

Balance unexpended . . . . . \$21,320 79

INVENTORY OF PROPERTY AND MATERIALS ON HAND,  
JAN. 31, 1892.

9 horses.	30½ bales of hay.
8 sets of single harnesses.	4½ bales of straw.
2 sets double harnesses.	50 bushels of oats.
4 single wagons.	25 feet of hose.
2 wagons, double or single.	400 ventilators for lanterns.
1 platform wagon, d'ble.	1 large turning-machine.
3 pungs, single.	1 large burring-machine.
1 pung, double.	1 small burring-machine.
1 top buggy.	1 wiring-machine.
1 open buggy.	1 rolling-machine.
6 robes.	1 pair rotary shears.
1 carryall.	2 pairs bench shears.
2 sleighs.	1 double seamer.
16 blankets.	1 groover.
1 rubber horse-cover.	1 squaring shear.
1 whip.	1 tin-folder.
8 horse-sheets.	1 lantern-form.
2 buggy-covers.	1 vise.
2 buggy-mats.	1 grindstone.
3 sets interfering boots.	2 fire-pots.
4 carriage-jacks.	1 fire-extinguisher.
1 oiling-pan.	1 stove in wash-room.
Necessary equipment	4 tons of coal.
for washing wagons,	1 desk in office at shop.
cleaning horses and	1 stove in office at shop.
harnesses.	3 chairs in office at shop.
	1 clock in office at shop.

- |   |  |
|---|--|
| 365 lbs. 14-oz. copper.                           | 1 double seaming-stake<br>with four heads.     |
| 102 lbs. solder.                                  | 1 square stake.                                |
| 8 lbs. iron wire.                                 | 1 lot hand-tools.                              |
| 15 lbs. brass wire.                               | 1 stove in tin-shop.                           |
| 17 lbs. copper wire.                              | 1 crane and tackle.                            |
| 20 lbs. rosin.                                    | 1 bolt-cutter.                                 |
| 339 copper cross-bars.                            | 1 forge.                                       |
| 1 clock.  | 1 sheet heavy copper.                          |
| $\frac{1}{2}$ barrel wooden tops for<br>lanterns. | 35 30-ft. lanterns.                            |
| 1 steel square.                                   | 20 15-ft. lanterns.                            |
| 390 stopcocks.                                    | 2 brooms.                                      |
| 1 paint-mill.                                     | 2 hand-saws.                                   |
| 1 stove in paint-shop.                            | 1 buck-saw.                                    |
| 1 water-cooler.                                   | 4 lengths pipe cover.                          |
| 3 40-gallon cans, for oil.                        | 50 belts for burner-boxes.                     |
| 5 3-gallon cans, for oil.                         | 4 dozen oil faucets.                           |
| 5 5-gallon cans, for oil.                         | Lot of bolts, screws,<br>etc.                  |
| 1 10-gallon can, for oil.                         | $\frac{1}{2}$ keg nails.                       |
| 1 dozen small brushes.                            | 1 oil cabinet.                                 |
| 1 dozen Badger brushes.                           | 2 iron shovels.                                |
| 12 duster brushes.                                | 5 gross lava tips.                             |
| 150 number frames.                                | 2 snow-shovels.                                |
| Lot old stopcocks.                                | 1,150 gas burners.                             |
| Lot burner-pipes.                                 | 12 pairs gas pliers.                           |
| Lot signs and numbers<br>for lanterns.            | 260 torches.                                   |
| 38 dozen B " Fireside "                           | 100 brass nozzles.                             |
| burners.  | 22 dozen burner-brushes.                       |
| 197 gross lampwicks.                              | 2 boulevard lanterns.                          |
| 6 doz. lamp-stands.                               | 18 boulevard lantern-<br>heads.                |
| 12 torch-handles.                                 | 134 boxes, 10 $\times$ 12, glass.              |
| 48 putting-out hooks.                             | 183 boxes, 12 $\times$ 14 glass.               |
| 2 breast-lanterns.                                | 73 boxes, 12 $\times$ 15, glass.               |
| 233 iron posts.                                   | 10 boxes assorted glass<br>for large lanterns. |
| 32 bridge-posts.                                  | 150 lbs. white-lead.                           |
| 572 naphtha lanterns.                             | 1 gal. spirits turpentine.                     |
| 118 gas lanterns.                                 | 2 gallons oil.                                 |
| 112 oil lanterns.                                 | 90 pounds putty.                               |
| 14 sanitary lanterns.                             | 12 lbs. lampblack.                             |
| 5 rubber coats.                                   | 3 gallons thinning.                            |
| 5 prs. rubber boots.                              | 2 oil-pumps.                                   |
| 1 blow horn stake.                                | 16 common posts.                               |
| 5 soldering-coppers.                              | 1 large gas-post.                              |
| 1 hollow mandrel-stake.                           |  |
| 1 beak-horn stake.                                |  |

3 low-base posts.	234 dozen La Bastie chimneys.
32 posts for stone walk.	49 wooden lamp-boxes.
968 post-heads.	110 ladders.
4 mast-arms.	4 long ladders.
11 eighteen-foot extensions.	1 pair steps.
90 fifteen-foot extensions.	1 pair scales.
34 iron brackets.	Property and tools in hands of lamp-lighters, and all plans of routes, etc.
1 barrel Argand chimneys.	
5 dozen oil-founts.	















ANNUAL REPORT  
OF THE  
LAW DEPARTMENT,  
FOR THE YEAR 1891.

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BOSTON, Feb. 1, 1892.

HON. NATHAN MATTHEWS, JR.,

*Mayor of the City of Boston:*

SIR: The undersigned officers in charge of the Law Department submit the following as the report of the department for the thirteen months ending January 31, 1892:

The office of Corporation Counsel was held by Mr. James B. Richardson until May 1, when Mr. Thomas M. Babson, formerly First Assistant City Solicitor, was appointed to the position. Mr. Robert W. Nason, formerly Second Assistant City Solicitor, was appointed to the position of first assistant in Mr. Babson's place, and Mr. Thomas W. Proctor was appointed to succeed Mr. Nason.

The regular duties of the department have been performed, consisting in the giving of written opinions and verbal advice in answer to requests therefor from the Mayor, the heads of departments, officers of the city, committees of the City Council and the branches thereof, and the school committee; the investigation and passing upon claims against the city which have been allowed by the committee on claims or the City Council; the charge,

management, and conduct of all cases pending in the various courts of the Commonwealth in which the city was a party, or in any way interested, including trials, arguments, etc.; attendance before committees in settlements, and all the work connected therewith; attendance upon the Legislature and its committees, and the preparation and presentation of drafts of bills, petitions, and orders, for the purpose of securing legislation desired by, or for the interest of, the city; the drafting, supervision, and approval of contracts, bonds, and other instruments relating to matters undertaken by or for the city, or in which it had an interest; the preparation, revision, and compilation of ordinances, and of tables showing changes therein; the examination of titles to real estate, or interests in real estate, in cases where the city has taken or purchased land, and in which its rights or interests were involved; the drafting, preparation, and furnishing of deeds, leases, and other papers relating thereto; and, in general, the charge and management of all legal matters in any way affecting the city or any of its departments.

At the beginning of the last municipal year, January 5, 1891, there were pending in the various courts 401 cases in which the city was directly interested, and there have since been instituted 394, making in all, 795, not including the numerous cases in which the city was summoned as the trustee of third parties. Of these cases 210 have been disposed of, leaving still pending, February 1, 1892, 585, of which the classification and list are as follows:

Cause of Action.	Pending, Jan. 5, 1891.	Brought since Jan. 5, 1891.	Disposed of.	Still pending.
Betterments, taxes, and assessments . . .	14	3	4	13
Building law violations, . . .	31	—	3	28
Land damages . . .	94	80	82	92
Personal injuries . . .	135	105	72	168
Water pollutions . . .	71	15	3	83
Miscellaneous . . .	56	191	46	201
	<hr/> 401	<hr/> 394	<hr/> 210	<hr/> 585

### LIST OF CASES.

#### *City Plaintiff.*

Court.	Defendant.	Cause of Action.
Municipal.	Berry, Benj. J.,	Rent of Apple Island.
Superior.	Boston Heating Co.,	Taxes and water-rates.
Supreme.	Brookline, Town of,	Laying road over aqueduct.
Superior.	Candler, John W.,	Ashes for filling.
"	Commonwealth of Mass.,	Taking land for sewer.
"	Cummings, Wm. H. H.,	Support in insane asylum.

Court.	Defendant.	Cause of Action.
Superior.	Everett, Town of,	Support of paupers.
"	Hammond, Edward P.,	For amount of judgment in case <i>v.</i> the City.
Municipal.	Jordan, H. R.,	Rent of land.
Superior.	N. Y. & N. E. R.R. Co.,	To separate grades, Dudley st.
"	Rooney, John,	To abate a nuisance.
"	Tremont Meter Co.,	Breach of contract.
Municipal.	Way, John M.,	Support of son in asylum.

*Water-Pollution Cases.*

Supreme.	Archibald, David,	Mystic supply.
"	Bent, Wm. H.,	Cochituate supply.
"	H. O. Bernard M'fg Co.,	Mystic supply.
"	Bond, Dan'l W.,	do.
"	Bryant, Ambrose,	Cochituate supply.
"	Burns, Fanny,	do.
"	Burks, Charles W.,	do.
"	Chamberlin, Woodbury O.,	Mystic supply.
"	Childs, Curtis W.,	do.
"	Clapp, Geo. B.,	do.
"	Copithorne, Christina,	Cochituate supply.
"	Same,	do.
"	Cummings, John,	Mystic supply.
"	Cutting, Alexis O.,	do.
"	Davenport, Stearns G.	Cochituate supply.
"	Same,	do.
"	Dessau, Moreland M.,	do.
"	Same,	do.
"	Same,	do.
"	Dow, Alfred A.,	Mystic supply.
"	Drake, Henry S.,	Cochituate supply.
"	Drake, Newell S.,	do.
"	Dwight Print Co.,	Sudbury supply.
"	Fales, Mary E.,	Cochituate supply.
"	Fisk, David,	do.
"	Same,	do.
"	Fitzgibbon, Patrick,	do.
"	Flynn, Nicholas,	do.
"	Forsyth, William,	do.
"	French, Wm. H.,	do.
"	Gerald, Nathl. R.,	do.
"	Goulding, Eleazar,	do.
"	Hardy, Melvil C.,	do.
"	Hartnett, Margaret,	do.
"	Hayward, Milan W.,	do.
"	Hill, John,	Mystic supply.
"	Humphreys, Horace,	Cochituate supply.
"	Same,	do.
"	Same,	do.
"	Hawkins, Sarah,	do.
"	Hoe, Matthew,	do.
"	King, Geo. H.,	do.
"	Leathers, Sam'l N.,	do.
"	Same,	do.
"	Leland, Frank H.,	do.
"	Loker, Ida M.,	do.
"	Lynch, Charles,	do.
"	Maxwell, John,	Mystic supply.



Court.	Defendant.	Cause of Action.
Supreme.	Marshall, John K.,	Mystic Supply.
"	McManus, Mary,	Cochituate supply.
"	Mills, Rebecca,	do.
"	Morse, Leonard,	do.
"	Mulhig, John A.,	do.
"	Natick Gas Co.,	do.
"	Odd Fellows Association, of Stoneham,	Mystic supply.
"	Para Rubber Shoe Co.,	Cochituate supply.
"	Pearse, Adelbert O.,	do.
"	Peters, James,	do.
"	Peters, Patrick H.,	do.
"	Pratt, Edward J.,	do.
"	Pratt, Elizabeth,	do.
"	Rice, Phineas G.,	do.
"	Richardson, Alonzo L.,	Mystic supply.
"	Ricker, Chas. D.,	Cochituate supply.
"	Risley, Chester W.,	do.
"	Robinson, Betsey E.,	do.
"	Robinson, Walter B.,	do.
"	Rowen, James,	do.
"	Shattuck, Annie M.,	do.
"	Stewart, John E.,	do.
"	Tidd, Wm.,	Mystic supply.
"	Travers, Patrick,	Cochituate supply.
"	Tufts College,	Mystic supply.
"	Vinton, Edward W.,	do.
"	Webber, Matthias J.,	Cochituate supply.
"	Westboro' Savings Bank,	do.
"	Whitney, Elizabeth M.,	do.
"	Winch, Leonard,	do.
"	Wood, Curtis,	do.
"	Wood, Granby,	do.
"	Wyatt, Wm. B.,	do.
"	Yates, Eliza W.,	do.
"	Ames, Fred L.,	Violation of Building Laws.
"	Bassett, Julia W.,	do.
"	Brady, Catherine,	do.
"	Cunningham, Samuel B.,	do.
"	Doyle, Thos.,	do.
"	Fitzgerald, James,	do.
"	Flagg, Fred D.,	do.
"	Howard, Wm.,	do.
"	King, Margaret,	do.
"	Lambert, Louis F.,	do.
"	Same,	do.
"	Loud, John C.,	do.
"	Mansfield, Geo. F.,	do.
"	McDevitt, Chas. F.,	do.
"	Same,	do.
"	McDevitt, Robert,	do.
"	O'Keefe, Daniel,	do.
"	Partridge, Wm. J.,	do.
"	Same,	do.
"	Randall, Henry,	do.
"	Same,	do.
"	Same,	do.
"	Robinson, Wm.,	do.
"	Riley, Patrick,	do.

Court.	Defendant.	Cause of Action.
Supreme.	Robinson, Hyman,	Violation of Building Laws.
"	Silverman, Moses,	do.
"	Shea, Eliza,	do.
"	Sullivan, John,	do.

*City Defendant.*

Court.	Plaintiff.	Cause of Action.
Superior.	Abbott, Hannah F.,	Nuisance by sewer.
Supreme.	Adams, Henry F., Ex'r,	For fees for dog licenses.
Superior.	Adsit, Willard J.,	Injury in street.
"	Alexander, Alexander,	Flowing land.
"	Allen, Chas. C.,	Injury by runaway horse.
"	Allen, Geo. E.,	Nuisance by sewer.
"	Same,	do.
"	Allen, Matilda C.,	Flowing land.
"	Ames, Fred L.,	Damages by taking land.
"	Armstrong, Irwin,	Injury in street.
"	Atherton, Samuel,	Damages by taking land.
"	Aston, Henry,	Flowing land.
"	Austin, Robert,	
"	Bacon, Chas. N.,	Nuisance by sewer.
"	Same,	do.
"	Same,	do.
"	Same,	do.
"	Same,	do.
"	Bacon, Florence L.,	do.
"	Bailey, Jacob L.,	Injury in street.
"	Baker, Jonathan W.,	For pay as policeman.
"	Boll, Helene H.,	Injury in street.
"	Barbier, Gabrielle,	do.
"	Barry, Ellen,	do.
"	Bassett, Mary,	do.
"	Behnke, Mary,	Injury in ferry.
"	Bell, Annie M.,	Flowing land.
"	Bell, Laura,	Injury in street.
"	Bennett, Margaret,	Overflow of water-course.
"	Bessarick, Wm.,	Injury by fire-engine.
"	Beyer, John A.,	Overflow of water-course.
"	Billings, Alfred C.,	Injury in street.
"	Bingham, Henry,	do.
"	Blaser, Alice,	Overflow of water-course.
"	Blaser, Arnold,	do.
"	Blume, Andreas,	Damages for taking land.
"	Bost. & Albany R.R.,	To separate grades.
"	Same,	do.
"	Same,	For contempt, and for failure to build bridge ordered by the Court.
"	Bost. Asylum & Farm School,	
"	Boston Belting Co.,	Damages for taking land.
"	Bost. & Rox. Mill Corp.,	Taking water of Stony brook.
Supreme.	Same,	Damages for taking land.
		To enjoin building Harvard bridge.
Superior.	Bost. Foundry Supply Co.,	Overflow of Stony brook.
"	Bost. Water Power Co.,	Damages for taking land.
"	Bost. Yacht Club,	do.
"	Bowes, Mary J.,	Injury in street.

Court.	Plaintiff.	Cause of Action.
Superior.	Boyce, Philip,	Injury in street.
Supreme.	Brackett, Cephas,	To compel purchase of land.
Superior.	Bradford, Gamaliel,	Damages for grading.
"	Braman, G. T. W.,	Damages for taking land.
"	Brett, Geo. W.,	Trespass.
U.S. Dist.	Brickhill, Wm. A.,	Infringement of patent.
Superior.	Brooks, Geo. H.,	Sewer assessment.
Supreme.	Brooks, James I.,	To vacate laying out of park.
Superior.	Browne, Mary A.,	Injury in street.
"	Browne, Edward I.,	Damages for taking land.
"	Same,	do.
"	Brown, Frank P.,	Overflow of water-course.
"	Brown, Williamina,	To have deed reformed.
"	Brush, Isador,	Overflow of water-course.
"	Bucknam, Emma,	Injury in street.
"	Burnham, Choate,	Damages for taking land.
"	Burnside, Alexander,	do.
"	Burns, Patrick A.,	Overflowing land.
"	Burnett, Andrew,	do.
"	Butler, Paul,	Damages for taking land.
"	Butler, Thomas P.,	do.
"	Buzzell, Sarah A.,	Injury in street.
"	Callahan, Bartholomew,	Overflow of Stony brook.
"	Callahan, Daniel,	do.
"	Callahan, Deborah F.,	Injury in street.
"	Cambridge, City of,	Support of paupers.
"	Carpenter, Jos. G.,	Injury in street.
"	Carr, Abbie M.,	do.
"	Carroll, Julia,	Overflow of water-course.
"	Carroll, Patrick,	Injury in street.
"	Carroll, Patrick H.,	Damages for taking land.
"	Casey, Ann,	Injury in street.
"	Cassidy, James,	Nuisance by sewer.
Supreme.	Caswell, Albert S.,	Nuisance by dump scows.
Superior.	Charlestown Savings Bank	Overflow of Stony brook.
"	Chase, Ellen A.,	Injury in street.
Supreme.	Choate, Chas F.,	Trespass.
Superior.	Clark, Mary A.,	Injury in street.
"	Clark, Thomas,	do.
"	Clark, Wm. R.,	Taking land.
"	Cleverly, Thos. F.,	Injury in street.
"	Coe, Annie I.,	Taking land.
"	Cole, Chas. D.,	Overflow of water-course.
"	Conklin, Edw'd D.,	Injury to horses on railroad.
"	Connolly, Timothy,	Nuisance by sewer.
"	Same v. J. W. Ricker,	Arrest for taxes.
"	Connolly, Timothy,	Injury in sewer.
"	Connors, Delia,	Injury in street.
"	Conroy, Dan'l,	do.
"	Constitution Wharf Co.,	Nuisance by sewage.
"	Conway, Thomas,	Trespass.
"	Cordaville Woolen Co ,	Taking land.
"	Cosgroves, Mary A.,	Injury in street.
"	Cox, Thos.,	do.
"	Crawford, Angelina,	do.
"	Cronan, John F.,	Taking land.
"	Curley, Ellen,	Injury by Stony brook.
"	Same,	do.
"	Curley, Mary,	do.

Court.	Plaintiff.	Cause of Action.
Superior.	Curran, Peter,	Injury by Stony brook.
"	Curtis, George,	Taking land.
"	Daly, Ann,	Injury in street.
"	Daly, Mich'l F.,	For pay as policeman.
"	Same,	do.
"	Dana, Chas. B.,	Grade damages.
"	Same,	do.
"	Davison, Archibald T.,	Injury in street.
"	Dearborn, Chas. E.,	Taking land.
"	Dearborn, J. L.,	do.
"	Decker, Fred,	Injury in street.
"	Deegan, Catherine, Admx.	Injury pulling down building.
"	Defren, John,	Nuisance by sewer.
"	Deihl, Peter,	Overflow of Stony brook.
"	Devine, John,	Taking land.
"	Doherty, Henry,	Overflow of water-course.
"	Doherty, Mich'l, v. J. P. Sullivan,	Assault by officer.
"	Doherty, Mich'l,	Overflow of water-course.
"	Dickson, Almira,	Damage by blasting.
"	Dolan, James,	Flowing land.
"	Dolan, Mary A.,	do.
"	Donovan, Jeremiah,	Taking land,
"	Dowd, John J.,	Injury in street.
"	Dowd, Peter A.	Flowing land.
"	Doyle, James,	do.
Municipal.	Same,	Damage to horse in street.
"	Driscoll, Jeremiah,	Injury in tree on Common.
"	Driscoll, John C.,	Injury at pumping-station.
"	Drislane, Margaret,	Injury in street.
"	Dugal, Philip E.,	Overflow of water-course.
"	Dwight Print Co.,	Taking land,
"	Dymond, Angelina L.,	Injury in street.
"	Dymond, John J.,	Injury to wife.
"	Early, James,	Injury in street.
"	Eastern Electric Cable,	Overflow of Stony brook.
"	Eastman, Olive E.,	Injury in street.
"	Edgerly, Jas. W.,	Overflow of Stony brook.
"	Edwards, Jacob,	Taking land.
"	Eldredge, Jas. T.,	Betterment, Harrison ave.
"	Same,	do.
"	Ellis, Stephen,	Taking land,
"	Estabrook, Rufus,	Grade damages.
"	Fairbanks, Lorenzo S.,	Injury in street.
"	Fall River, City of,	Support of paupers.
"	Farrell, James,	Flowing land.
"	Farrell, Mary A.,	Injury in street.
"	Fay, Peter,	Flowing land.
"	Fegan, Wm. J.,	Injury in street.
"	Same, Admr ,	do.
"	Same,	do.
"	Ferriter, Michael,	Injury in sewer.
"	Fiske, Whf. and W. Co.,	Damage to vessel by piles.
"	Flagg, John D.,	Overflow of water-course.
"	Flaherty, Catherine,	(Not entered.)
"	Flavin, Joseph J.,	Injury by city horse.
"	Foley, Ellen,	Injury in street.
"	Foley, Patrick F.,	do.
"	Foley, Peter,	Taking land.

Court.	Plaintiff.	Cause of Action.
Municipal.	Foote, Elizur V.,	Work on Commonwealth ave.
"	Forbes, Emma L.,	Taking land.
"	Fowler, James J.,	Injury in street.
"	Francis, Margaret,	do.
"	Fraser, Edw. C.,	Overflow of water-course.
"	Freeman, Annie E.	Injury in street.
"	French, Jonas H.,	Construction of sewer.
"	French, Sarah,	Injury in street.
"	Fuller, Ellen M.,	Damage by blasting.
"	Gay, Albert,	Grade damages.
"	Garvey, James,	Overflow of water-course.
"	Gerrity, John,	Taking land.
U.S. Circuit.	Goff, James M.	Injury in street.
Superior.	Good, Patrick B.,	do.
"	Goodale, Alonzo E.,	do.
"	Gorham, Edwd.,	Injury in park.
"	Goss, Sarah W.,	Nuisance by sewer.
"	Graham, Joseph,	Injury by wire.
"	Grant, George,	Taking land.
"	Grasser, Paul,	Flowing land.
Municipal.	Green, John A.,	Work on hospital.
Superior.	Greydon, Annie D.,	Injury in street.
"	Grodner, Pauline,	do.
"	Hagerty, Patrick,	Nuisance by sewer.
"	Hall, Annie B.,	Injury in street.
"	Hall, Dexter A.,	Taking land.
"	Hankey, Anthony,	do.
"	Hanley, Ellen,	Nuisance by sewer.
"	Harding, Ellen M.,	Trespass on wharf, etc.
"	Same,	do.
"	Harkins, John,	Injury by electric wire.
S.J.C. Eq.	Harris, Edward C.,	Obstruction of water-course.
Superior.	Hart, Jennie E.,	Injury in street.
Sup. Mx.	Hart, S. Rowland,	Overflow of water-course.
Sup. S.	Hart, Thos. N.,	Taking land.
"	Hart, William H.,	do.
"	Harvard College,	Sewer assessment, W. Rox.
S.J.C. Eq.	Same,	To abate sewer assessment.
Superior.	Harvey, Thomas,	Injury in sewer.
"	Haskins, Mary C.,	Taking land.
"	Hayes, Francis B.,	Overflow of water-course.
"	Hayes, John,	Injury in street.
Sup. No.	Heffernen, Mary E.,	do.
Sup. Su.	Heffron, Mary C.,	do.
"	Hennessey, Thos.,	do.
"	Hennessey, Ellen E.,	do.
"	Hern, Jas. B.,	Flowing land.
"	Hodges, Edw. C.,	Taking land.
"	Horgan, Dennis A.,	Work on school building.
"	Horgan, Mary A. C.,	Injury in street.
"	Horr, Wilhemina,	Flowing land.
"	House of Good Shepherd,	Taking land.
"	Hughes, Harry,	Injury in street.
"	Hunt, Ellen W.,	do.
"	Hunt, Henry F.,	do.
"	Same,	do.
"	Hurd, Willard,	Overflowing land.
"	Jackson, Chas. E.,	Trespass.
"	Jamaica Pond Aq. Co.,	Taking land.

Court.	Plaintiff.	Cause of Action.
Sup. Su.	Jones, Emily D. G.,	Injury in street.
"	Jones, Mary E. R.,	Overflow of water-course.
"	Jordan, Horace W.,	Taking land.
"	Kane, Mary,	Overflowing land.
Municipal.	Kean, Thos.,	Taxes alleged illegal.
Superior.	Keller, Mrs. C. M.,	Overflow of water-course.
"	Kelley, Ann,	Nuisance by sewer.
"	Kelley, Fanny,	Injury in street.
"	Kelley, John,	do.
"	Kern, Katherine,	Flowing land.
"	Keyes, Samuel,	Injury in street.
"	Kingman, Freeman H.,	Damage by water.
"	Klein, John,	do.
"	Kingman, Hosea, <i>et al.</i> ,	For acceptance of award for land taken for sewer.
"	Knight, Ellen M.,	Appeal from tax.
"	Knowles, Josephine S.,	Taking land.
"	Kurrus, Catherine,	Damage by water.
"	Ladd, Nath'l W.,	Taking land.
"	Lally, Catherine,	Injury in street.
"	Leach, Albert E.,	Taking land.
"	Lee, Mary F.,	Injury in street.
"	Leonard, Catherine,	do.
"	Letts, Chas.,	do.
"	Same,	do.
"	Leukhart, Rosina,	Taking land.
"	Leydecker, David R.,	Injury in street.
"	Lindberg, Mary,	do.
"	Longfellow, Nathan,	Overflowing land.
Municipal.	Loud, Geo. H.,	Injury in street.
Superior.	Lovis, Chas. H.,	For pay as policeman.
"	Lowe, Wm. G.,	Injury at ferry.
"	Lyons, Mary E.,	Injury in street.
"	Lynch, Margaret,	Flowing land.
"	Lynch, Mark H.,	do.
"	Mackenzie, Lydia,	Injury in street.
"	Madden, Margaret,	do.
"	Maglio, Vincenzo,	do.
"	Mahoney, Catherine E.,	do.
"	Malady, Ellen,	do.
"	Same,	Injury in building.
"	Malley, Hannah M.,	Injury in street.
"	Malloy, John F., Exr.,	Damaged by water.
"	Maloy, Walter,	Injury in street.
"	Mann, Wm. C.,	do.
"	Marden, Geo. A., Treas.,	Support of paupers.
"	Marston, Louisa S.,	Sewer assessment.
"	Martin, Hannah,	Taking land.
"	Martin, John,	do.
"	Martin, James,	Injury at stone-crusher.
"	Marzinski, Jonas,	Injury in street.
"	May, Lewis,	Taking land.
"	McAleney, James,	Overflow of water-course.
"	McCarthy, James,	Injury in street.
"	McCauphy, J. v. J. Colter,	Assault by city workman.
"	McCue, Thos.,	Injury in street.
"	McElroy, Ellen,	Taking land.
"	McGinn, Maggie F.,	Injury in City Hospital.
"	McGlynn, Mabel,	Damage by water.

Court.	Plaintiff.	Cause of Action.
Superior.	McGonigle, James,	Injury by electric wire.
"	McGonigle, John,	do.
"	McGovern, James.	
"	McGowan, Mary A.,	Damage by water.
"	McGrath, James,	Injury in street.
"	McHugh, Nellie,	do.
"	McMahon, James,	do.
"	McManus, John,	do.
"	McNally, John,	Taking land.
"	Meehan, Patrick,	Injury in street.
Supreme.	Mercantile Whf. Co.,	Nuisance by drain.
Superior.	Merrill, Edw'd J.,	Injury in street.
"	Mexal, Rene,	Damage by water.
"	Millis, Henry L.,	do.
"	Same,	do.
"	Minchin, James,	do.
"	Moakley, John F.,	Injury in street.
"	Moffett, Catherine,	do.
"	Montgomery, Eleanor,	do.
"	Moore, Chas. A.,	Injury in street.
"	Moore, Eliza A.,	Taking land.
"	Moore, Garrett,	Nuisance by sewer.
"	Moore, Mary,	do.
"	Morrison, Morgiana A. M.,	Injury in street.
"	Moses, Louis,	Flowing land.
Supreme.	Mt. Hope Cemetery,	
	Proprs. of,	For conveyance of cemetery.
Superior.	Murphy, Bartholomew,	Overflow of water-course.
"	Murphy, Catherine,	Damage by blasting.
"	Murphy, Cornelius,	do.
"	Murphy, John,	do.
"	Murphy, John, Admr.,	Injury in street.
"	Murphy, James,	Injury in new Court-House.
U.S. Dist.	Murphy, James,	Infringement of patent.
Superior.	Murphy, Mary,	Injury in street.
"	Murphy, Mary,	Damage by water.
"	Murphy, Patrick,	do.
"	Murphy, William,	Injury in street.
"	National Construction Co.,	Work on sewers.
"	Nawn, Hugh,	do.
Supreme.	N. Eng. Printing Tel. Co.	
"	v. Bd. of Aldermen,	For locations for poles.
"	Same v. H. H. Carter,	For permits for poles.
Superior.	Newhall, Horatio,	Taking Whitehall pond.
"	Same,	do.
"	Newton, Mary,	Injury in street.
"	N.Y. & N.E. R.R. Co.,	Undermining abutment.
"	Nickerson, Albert W.,	Taking land.
"	Norton, Martin,	Injury by blasting.
"	Nowland, Kate,	Injury in street.
"	Noyes, Chas. E.,	do.
"	Noyes, John L.,	Overflowing land.
"	Noyes, Rufus K.,	Damage to team in street.
"	Nugent, Jas. H.,	Overflow of water-course.
"	Nutter, Wm. F.,	do.
"	O'Brien, Sarah J.,	Injury in street.
"	O'Brien, Thos.,	do.
"	O'Connell, Cornelius,	do.
"	Old Colony R.R.,	To separate grades.

Court.	Plaintiff.	Cause of Action.
Superior.	Orcutt, Mary E.,	Injury in street.
"	Orr, William,	do.
"	Osgood, Jas. H.,	Refusal to give permit to move building.
"	Papanti, Lorenzo F.,	Damage by water.
"	Palmer, Mary E.,	Taking land.
"	Patterson, Isaac,	Damage by water.
"	Patterson, John,	do.
"	Same,	do.
"	Pendleton, L. B.,	do.
"	Perkins, Benj. C.,	Use of land.
"	Same,	do.
"	Perkins, Osborne F.,	For pay as policeman.
U.S. District.	Phillips, Jacob,	Damage to vessel by insufficient draw.
Superior.	Powers, Catherine,	Injury in street.
"	Pratt, Laban,	Taking land.
"	Prendergast, John,	do.
"	Purdy, John H.,	Injury in street.
"	Putney, Lyman K.,	Overflowing land.
"	Quinn, Margaret,	Injury in street.
"	Reagan, Jeremiah,	Overflowing land.
"	Rea, John R.,	Injury in street.
"	Reed, Geo. W. P.,	Overflow of water-course.
"	Reed, Wm. H.,	Taking land.
"	Same,	do.
"	Restelle, Sarah J.,	Injury in street.
"	Reynolds, Thomas,	Taking land.
"	Rice, Esther J.,	Injury in street.
"	Rice, Henry,	Taking Whitehall pond
"	Rice, Mary A.,	do.
"	Richardson, Jas. H.,	Injury in street.
Municipal.	Richardson, Rinaldo,	For assigned wages.
Superior.	Richardson, Robt.,	Injury in street.
"	Richmond, Augustus,	Taking land.
"	Ricker, Miss F. A.,	Damage by water.
"	Ritchie, Hannah K.,	Injury in street.
"	Robinson, Sarah W.,	do.
"	Roberts, John N.,	Taking land.
"	Rodden, John,	Injury at water-works.
"	Rosenthal, Julius,	Damage by water.
"	Ross, Edgar V. R.,	Injury in street.
"	Rowell, Oliver P.,	For pay as policeman.
"	Rueter, Henry H.,	Taking land.
"	Russ, Augustus,	Tax on Brewster Island.
"	Russell, Mary A.,	Injury in street by blasting.
"	Ryan Catherine,	Injury in street.
"	Sampson, Walter S.,	Amt. of judgment against them for injury at Court-House.
"	Samson, Sarah B.,	Flowing land.
"	Sanderson, Harriet V.,	do.
"	Sawyer, Sam. E.,	Taking land.
"	Scanlan, Wm. F.,	Damage by water.
"	Seaman, Harry,	Malpractice at hospital.
"	Same v. Trs. of Hospital,	do.
"	Same v. Dr. H. L. Burrell,	do.
"	Sears, Alfred,	Injury in street.
"	Schloss, Nathan,	Damage by water.
"	Sharkey, Felix F.,	Injury by derrick



Court.	Plaintiff.	Cause of Action.
Superior.	Shaw, John,	Injury in street.
"	Shaw, Norah,	do.
"	Sheehan, Johannah N.,	do.
"	Sheehan, Kate F.,	do.
"	Sherive, Geo. H.,	Flowing land.
"	Sibley, Ellen M.,	Injury in street.
"	Siebert, Chas. A.,	Damage by water.
"	Slattery, Ellen,	Injury in street.
"	Smith, Jas. J.,	do.
"	Smith, James M.,	Taking land.
"	Smith, Phineas B.,	Grade damages.
"	So. Boston Yacht Club,	Taking land.
"	Spach, Henry F.,	Overflow of Stony brook.
"	Same, Exor.,	do.
"	Spence, Geo. H.,	Taking land.
"	Spenceley, Rebecca J.,	Overflow of Stony brook.
"	Spofford, S. W., v. J. J. Franey,	Replevin of horse.
"	Starrett, Minnie,	Flowing land.
"	Stetson, Alpheus M.,	Taking land.
"	Stevens, Otis,	Damage by water.
"	Stevenson, Grace,	Taking land.
"	Stevenson, J. Henry,	Bricks furnished.
"	Stoughton, Town of,	Support of paupers.
"	Stroud, Fannie,	Injury in street.
"	Sullivan, Mary,	do.
Supreme.	Sweet, Wm. A.,	Taking land.
Superior.	Swenson, Mons,	Overflow of water-course.
"	Taylor, Abbie J.,	Grade damages.
Municipal.	Tennahan, Bridget L.,	For assigned wages.
Superior.	Thayer, Elisha,	Filling dock.
"	Thayer, Mary A.,	Injury in street.
"	Same, Admx.,	do.
"	Then, John,	do.
"	Tigner, Marcus H.,	Flowing land.
"	Tishler, Marcus H.,	do.
"	Titus, Lillie B.,	Taking flats.
"	Tobey, Rilpha A.,	Overflow of water-course.
"	Tower, Abner J.,	do.
"	Townsend, True W.,	Taking land.
"	Tracy, Patrick,	Injury in street.
"	Tremont Foundry and Machine Co.,	Overflow of Stony brook.
Supreme.	Tufts College, Trs. of,	For leave to sell land.
Superior.	Trundy, Henry J.,	Overflow of water-course.
"	Turner, Chas. W.,	Injury by runaway horse.
"	Tuttle, Joseph H.,	Laying sewer.
"	Twombly, Sarah,	Injury in street.
"	Tyner, William,	Taking land.
"	Upham, Benj. N.,	Flowing land.
Supreme.	Vaughan, Wm. W., Ex'r,	Appeal from tax.
"	Vinal, John M.,	Creditors' bill.
Superior.	Vincent, Mary A.,	Injury in street.
"	Walsh, Mary,	do.
Municipal.	Watson, F. M., v. A. A. Hall,	Damage by blasting.
Superior.	Way, John M.,	Sewer assessment.
"	Werner, Lisette,	Damage by water.
"	Wheeler, B. Asa,	Appeal from tax.

Court.	Plaintiff.	Cause of Action.
Superior.	White, David S.,	Grade damages.
"	White, Fannie F.,	do.
Municipal.	Whitlock, Jas. N.,	Injury in street.
Superior.	Whittemore, Chas. M.,	Obstruction of drain.
"	Wilbur, Anna L.,	Taking land.
"	Willard, Chas. E.,	do.
"	Winchester, Edward S.,	do.
"	Winslow, Mary A.,	Injury in street.
"	Woodward, Joseph,	Damage by water.
U.S. Circuit.	Worthington, Chas. C.,	Pump contract.
Superior.	Zikendrath, Conrad,	Injury in street.

## PROPERTY OF THE DEPARTMENT.

The property of the department consists of law books, furniture, etc., substantially as set forth in the report of last year, and a schedule of the same is on file in the records of the department.

## OFFICERS OF THE DEPARTMENT.

The officers of the department are :

Thomas M. Babson, *Corporation Counsel*.  
 Andrew J. Bailey, *City Solicitor*.  
 Robert W. Nason, *First Assistant City Solicitor*.  
 Thomas W. Proctor, *Second Assistant City Solicitor*.  
 Charles Frank Day, *Conveyancer*.  
 Roscoe P. Owen, *Conveyancer*.  
 Fisher Ames, *Clerk*.

Respectfully submitted,

THOMAS S. BABSON,  
*Corporation Counsel*.

ANDREW J. BAILEY,  
*City Solicitor*.





ANNUAL REPORT  
OF THE  
DEPARTMENT FOR LAYING OUT STREETS,  
FOR THE YEAR 1891.

BOSTON, Feb. 1, 1892.

HON. NATHAN MATTHEWS, JR.,  
*Mayor of the City of Boston:*

SIR: In compliance with the order of the City Council, approved by the Mayor, Dec. 5, 1891, the Board of Street Commissioners present the following report upon their proceedings, with a statement of the receipts and expenditures of the Department for Laying Out Streets, including public lands, for thirteen months, from Jan. 1, 1891, to Jan. 31, 1892:

The following is a complete list of streets released to the city, streets widened, relocated, extended, and discontinued, with the length of private streets made public, the condition of the same, etc.

BOSTON PROPER.	
STREET.	FEET.
Mountfort, from Beacon to Ivy street . . .	636
North Margin, extended to Stillman street . .	83
Lucas, from Middlesex street to Shawmut avenue	98

Dundee, from West Chester park to Dalton street .	723
Malcolm, from Mount Vernon to Chestnut street .	240
Stanhope, from Berkeley street near Columbus avenue,	895
Norway, from Huntington avenue to Falmouth street,	225
North square, widened.	
Charlestown street, widened.	
Kennard avenue, widened.	
North square, relocated.	
High, widened and discontinued, north-west corner of	
Hartford street . . . . .	
	<hr/>
	2,900
East Springfield, discontinued from Harrison avenue	
to Albany street . . . . .	631
	<hr/>
	<u>2,269</u>

*Mountfort street* was filled to grade by the abutters and all released to the city. There are seven brick houses on this street.

*North Margin street* was extended at the request of the City Council. Forty-two thousand dollars was appropriated for this improvement, but it was done at an expense of \$27,164, leaving a balance of \$14,836. This extension opens up a badly congested district and is a great improvement to the surrounding territory.

*Lucas street* is an old street and was all released to the city. A large school abuts on this street and is in a location requiring care and police protection.

*Dundee street* is one of the streets of the Back Bay, was filled to grade, and substantially released to the city. There are twenty-nine brick houses on this street.

*Malcolm street* is an old street and was made public for sanitary reasons. Money was appropriated for this improvement by the City Council.

*Stanhope street.* The acceptance of this street has been under consideration by the Board for several years. The laying out at this time was imperative on account of the extensive buildings recently erected on the street. The abutters, in connection with the Old Colony Railroad, have built very substantial retaining-walls at a cost of nearly \$10,000. All of the abutters released to the city.

*Norway street* was all filled to grade by the abutters and released to the city. There are five brick buildings on this street.

## CHARLESTOWN.

STREET.	FEET.
Boyle, from Cordis to Pleasant street . . . . .	132
Baldwin, extended from Main street to Rutherford avenue . . . . .	247
	<hr/>
	379
	<hr/>

*Boyle street* is an old way, built upon and released to the city.

*Baldwin-street extension.* Money was appropriated by the City Council.

## EAST BOSTON.

STREET.	FEET.
Homer, from Moore to Byron street . . . . .	600
Horace, from Moore to Byron street . . . . .	600
Falcon, from Meridian to Putnam street . . . . .	1,483
Byron, from Saratoga to Pope street . . . . .	931
	<hr/>
	3,614
	<hr/>

*Homer and Horace streets* are old streets and part of the original plan of laying out of East Boston. There are twenty-six houses on these streets and they were made public for police supervision and for sanitary reasons. They were substantially released to the city.

*Falcon street* was released by the abutters, and money was appropriated by the City Council. There are twelve houses on this street.

*Byron street* has been under consideration by the Board for a number of years. It was made public at this time, as it was very essential that the grade should be established. There are twenty-two houses on the street, and it was released by the abutters and substantially graded.

## SOUTH BOSTON.

STREET.	FEET.
Gold, from B st. to the N.Y. and N.E. Railroad . . . . .	150
Gustin, from West Ninth st. to the Old Colony Rail- road . . . . .	354
	<hr/>
	504

*Gold street* is an old street, all built upon and released. Money was appropriated for building foot-bridge across the N.Y. and N.E. Railroad.

*Gustin street* was all released, every lot built upon, and money appropriated by the City Council.

# ROXBURY.

STREET.	FEET.
Eldora, from Hillside to Sunset street . . . . .	427
Smith, extended from Bumstead lane to Hunting- ton avenue . . . . .	504
Burke, from Tremont to Berlin street . . . . .	281
Harold, from Crawford to Harrishof street . . . . .	1,031
Reading, from Kemble to Swett street . . . . .	1,033
Sunset, from Parker Hill avenue to Hillside street . . . . .	399
Mansur, from Day to Schiller street . . . . .	374
Schiller, from Heath to Minden street . . . . .	302
Sewall, from Tremont street to Delle avenue . . . . .	314
Moreland, extended from Blue Hill avenue to Dennis street . . . . .	342
Southwood, from Edgewood street to Blue Hill avenue . . . . .	546
Cherry, extended to Dalmatia street . . . . .	112
Dacia, from Dalmatia to Dewey street . . . . .	235
Hunneman, extended from Harrison avenue to Washington street . . . . .	493
Dudley, widened from Vine to Hampden street.	
Whitney, widened and discontinued near Smith street.	
Walnut avenue, discontinuance near Cobden street.	
	<hr/> 6,393

*Eldora street* was constructed to grade and released to the city by the abutters.

*Smith-street extension.* Money was appropriated by the City Council.

*Burke street.* Every lot built upon and released to the city; an old street and laid out for sanitary reasons.

*Harold street.* All constructed to grade and released by the abutters to the city.

*Reading street.* An old street, all built upon and released by the abutters to the city. There are thirty-nine houses on this street.

*Sunset street.* Graded and released by the abutters to the city.

*Mansur street.* Graded and released by the abutters to the city. There are seven houses on this street.

*Schiller street.* Graded and released to the city by the abutters.

*Sewall street.* Formerly a place and extended to Delle avenue; built upon on both sides. There are twenty houses on this street.

*Southwood street.* An old street and released to the city by the abutters. There are eleven houses on this street.

*Moreland-street extension.* A long contemplated improvement and necessary that it should be done at this time to prevent buildings going up on the location. There are eleven houses on this part of Moreland street.

*Cherry street and Dacia street.* It was necessary that these streets be laid out at this time on account of contemplated building on the line of location. By this laying out, a thoroughfare is opened from Quincy street to Brookford street. There are thirty-three houses on these streets, valued at \$65,800.

*Hunneman street.* A very old street and has for some time been in bad condition. Money was appropriated by the City Council.

## DORCHESTER.

STREET.	FEET.
Granger, from Duncan to Clayton street . . .	521
Maxwell, from Milton avenue to Nelson street, . .	1,610
Longmeadow, from Clifton to Batchelder street . .	287
Buttonwood, from Mount Vernon to Locust street .	601
Harvest, from Dorchester avenue to Boston street.	950
Topliff, from Bowdoin street to Geneva avenue . .	1,353
Church, from Winter to High street . . . . .	320
Auckland, from Bay to Belfort street . . . . .	1,410
Shelton, extended to Wrentham street . . . . .	353
Tuttle, from Savin Hill avenue to Hartland street .	1,157
Houghton, from Mill to Pope's Hill street . . . .	1,415
Beale, from Dorchester avenue to Shawmut Branch of O. C. R.R. . . . .	536
Dalmatia, from Blue Hill avenue to Howard avenue,	724
Leyland, from Cottage to Burgess street . . . .	695
Dacia, extended from Dewey to Brookford street .	610
Harvard, relocated between Harvard avenue and Trescott place.	
Blue Hill avenue, widening near Tileston avenue.	
Howard avenue, relocated whole length.	
Blue Hill avenue, widening corner Morton street.	
	<hr/> 12,542

*Granger street* was all graded and released by the abutters



to the city. It is an old street and there are twenty-one houses abutting.

*Maxwell street* was all graded and released by the abutters to the city. There are fifteen houses on this street.

*Longmeadow street* was all built and released by the abutters to the city. There was seven houses on this street at the time of laying out, and it is all built upon to-day.

*Buttonwood street* was released to the city and money appropriated by the City Council. There are seventeen houses on this street.

*Harvest street* was a much needed improvement, released to the city, and money was appropriated by the City Council. There are fourteen houses on this street.

*Topliff street.* This street was built, and, with one exception, released to the city. There are eight houses on this street.

*Church street.* A very old street, released to the city and important that the city should control the street and establish the lines on account of public schools and its being an important thoroughfare.

*Auckland street* was released by the abutters to the city. There are seventeen houses on this street.

*Shelton-street extension.* This improvement connects with Dracut and Wrentham streets, and makes a highway from Dorchester avenue near Ashmont station to Adams street. Proposed building on the line of extension made it necessary that it be laid out at this time. The number of houses on Dracut, Wrentham, and Shelton streets is eighty-two, valued at \$170,000; seventy-five per cent. of which have been built during the past two years.

*Tuttle street* was substantially released and graded. There are twenty-seven houses on this street.

*Houghton street* was substantially released; it is an old street and was necessary to establish the lines and grade at this time. There are twenty-two houses on this street.

*Beale street* was all released and built upon. A very old street with eleven houses.

*Dalmatia street* was released and substantially graded. There are seven buildings, including one large building to be used for a church and school, and the street is rapidly building up.

*Leyland street* was all released and built by the abutters. There are twenty houses on this street.

*Dacia-street extension.* Released by the abutters to the city, and part of the street mentioned above as making a continuous street from Quincy street to Brookford street.

Twenty feet in width of this street is occupied by a city sewer, taking in Dorchester brook.

## WEST ROXBURY.

STREET.	FEET.
Call, extended from Keyes to Hall street . . .	505
Sylvia, from Washington to Forest Hills street . .	231
Kenneth, from Farrington to Beech street . . .	302
Cornwall, extended from Brookside avenue to Boylston avenue . . .	317
Peter Parley, from Forest Hills street to Walnut avenue . . .	1,122
Peter Parley, extended from Forest Hills street to Washington street . . .	159
Sycamore, from Ashland to Florence street . . .	1,375
German, from Washington to Grove street . . .	1,060
Goldsmith, from Centre to Custer street . . .	650
Ridge, from Sherwood to Sycamore street . . .	421
Ballard, from Centre to Custer street . . .	557
Prospect avenue, extended from Sheldon to Sycamore street . . .	168
Wenham, from Walk Hill street to Weldon street .	1,285
	<hr/> 8,152

*Call-street extension* opens up a highway necessary for the people near this territory. Money was appropriated by the City Council.

*Sylvia street.* Money was appropriated by the City Council.

*Kenneth street* (formerly Oak street). An old street, practically graded, released to the city and money appropriated by the City Council.

*Cornwall street.* A very necessary improvement, giving a way for the working people living on Boylston avenue and vicinity to reach the park. Money was appropriated by the City Council.

*Peter Parley street.* Built and released by the abutters to the city. An avenue leading to the park, practically a continuation of Cornwall street.

*Peter Parley-street extension.* For this street money was appropriated by the City Council.

*Sycamore street* was released by the abutters and money appropriated by the City Council. There are sixteen houses on this street.

*German street.* An old street, and released by the abutters to the city. There are ten houses on this street.

*Goldsmith street* was released by the abutters, and money was appropriated by the City Council. There are seven houses on this street.

*Ridge street* was released by the abutters, and money was appropriated by the City Council. There are six houses on this street.

*Ballard street* was released to the city, and is all built upon. There are fourteen houses on this street, and money was appropriated by the City Council.

*Prospect-avenue extension.* Released by the abutters and money appropriated by the City Council.

*Wenham street* was substantially released by the abutters. There were fifteen houses at time of laying out, and it is rapidly building up.

#### BRIGHTON.

STREET.	FEET.
Mount Vernon, relocated and extended to Foster street . . . . .	713
Westford, from Raymond street . . . . .	762
Blaine, from Braintree street to a private way . . . . .	404
Hano, from Braintree street to a private way . . . . .	486
Bradbury, from Franklin to Mansfield street . . . . .	371
Arlington, west of Parsons street . . . . .	399
Bigelow, from south of Webster street to Brooks street . . . . .	2,284
Bigelow, 147 sq. ft. discontinued near Webster street.	
Henshaw, from Market to Cambridge street . . . . .	979
Wirt, from Washington to Cambridge street . . . . .	258
Menlo, from Henshaw to Sparhawk street . . . . .	443
Western avenue, relocated opposite Market street.	
	<hr/> 7,099

*Mount Vernon street.* An old street, all released and built upon. There are fifteen houses on this street.

*Westford street.* (formerly Everett place). All released, graded, and built upon. There are twelve houses on this street.

*Blaine and Hano streets.* Released and built to grade by the abutters. There are fifty houses on these two streets.

*Bradbury street* was released and substantially graded by the abutters. There are eleven houses on this street.

*Arlington-street extension* is all built upon and graded, and was released by the abutters. There are thirteen houses on this street.

*Bigelow-street extension.* An old street, released by the

abutters. There are eleven houses on this part of Bigelow street.

*Henshaw street.* Money was appropriated by the City Council. Important to establish lines and grade, on account of extensive building improvements by the abutters; especially by the city of Boston, in the erection of a new court-house, police-station, and engine-house.

*Wirt street* was also laid out on account of the building as stated above.

*Menlo street* was all released and graded by the abutters. There are six houses on this street.

It was necessary to make the above widenings and relocations at this time, from the fact that alterations were about to be made and old buildings removed; also to prevent new buildings being erected on irregular lines; many of these improvements have been in contemplation for some years, waiting for old buildings to be taken down.

#### RECAPITULATION.

DISTRICT.	FEE.
Boston proper . . . . .	2,269
Charlestown . . . . .	379
East Boston . . . . .	3,614
South Boston . . . . .	504
Roxbury . . . . .	6,393
Dorchester . . . . .	12,542
West Roxbury . . . . .	8,152
Brighton . . . . .	7,099

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40,952=7.756 miles.

The valuation of the buildings on streets laid out in 1891 amounts to \$3,305,000.

The total estimated expense of the foregoing improvements was \$121,259.98.

Payments made for land damages and other claims on account of widening, relocating, and extending streets, including claims previous to Jan. 1, 1891:

#### LAYING OUT STREETS DEPARTMENT APPROPRIATION.

Hancock street, Dorchester . . . . .	\$5,535 52
Washington street, Dorchester . . . . .	4,645 00
Dacia street, Roxbury . . . . .	3,734 88
Charlestown street, City Proper . . . . .	3,268 00

Hill street, Charlestown . . . .	\$2,912 00
Dudley street, Roxbury . . . .	2,428 00
Commonwealth avenue . . . .	1,915 00
Shelton street, Dorchester . . . .	1,528 50
Harvard street, Dorchester . . . .	1,508 50
Moreland street, Roxbury . . . .	1,479 75
Cherry street, Roxbury . . . .	1,347 30
Sewall street, Roxbury . . . .	1,300 00
Dunmore street, Roxbury . . . .	1,202 00
Walpole street, Roxbury . . . .	1,025 00
East Second street, South Boston . . . .	1,000 00
Whitney street, Roxbury . . . .	1,000 00
Western avenue, Brighton . . . .	931 50
Marshfield street, Dorchester . . . .	900 00
King street, Dorchester . . . .	861 75
Whitfield street, Dorchester . . . .	711 60
Forbes street, Roxbury . . . .	502 00
Preble street, South Boston . . . .	350 00
North square, City Proper . . . .	312 00
Sturbridge street, Dorchester . . . .	200 00
Blue Hill avenue, Dorchester . . . .	200 00
Houghton street, Dorchester . . . .	150 00
Main street, Charlestown . . . .	75 00
Magazine street, Roxbury . . . .	70 00
	<hr/>
	\$41,093 30
	<hr/>

#### PAYMENTS MADE FROM SPECIAL APPROPRIATIONS.

Commonwealth avenue, widening . . . .	\$223,071 06
Smith-street extension . . . .	27,996 00
North Margin-street extension . . . .	27,164 00
Heath street, widening . . . .	6,564 92
Willard-street extension . . . .	6,462 15
Call-street extension . . . .	4,403 55
Sylvia street (Bond avenue) . . . .	3,238 00
Peter Parley-street extension . . . .	3,190 00
Cornwall-street extension . . . .	2,600 00
Buttonwood-street extension . . . .	450 00
Humboldt-avenue extension . . . .	36 00
	<hr/>
	\$305,175 68
	<hr/>

## EXPENDITURES.

## Salaries and other expenses.

John P. Dore . . . . .	\$3,250 00
Isaac S. Burrell . . . . .	3,250 00
John H. Duane . . . . .	1,708 33
John W. Morrison, clerk . . . . .	1,541 67
Hugh E. Brady . . . . .	1,400 00
Joseph H. Jenkins, clerk . . . . .	1,167 33

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\$12,317 33

Advertising . . . . .	\$1,226 29
Carriage-hire . . . . .	613 00
Service of appraisers . . . . .	400 00
Stationery and printing . . . . .	145 73
Telephone rental . . . . .	120 00
Atlases, directory, etc. . . . .	81 00
Constables' services . . . . .	41 18
Messenger service . . . . .	12 00

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2,639 20

*Public Lands.*

Commission paid for sale of land on Fellows street, $2\frac{1}{2}\%$ on \$2,107.25 . . . . .	\$52 68
Advertising above sale . . . . .	4 00
	<hr/>
	\$56 68

Commission paid for sale of land and buildings, corner of Bunker Hill and Tufts streets, 1% on \$6,025 . . . . .	\$60 25
Advertising above sale . . . . .	29 80
	<hr/>
	90 05
Repairs . . . . .	55 53
Taxes, Town of Everett . . . . .	\$31 90
City of Boston . . . . .	5 04
	<hr/>
	36 94
Stationery . . . . .	19 13
Cleaning vault . . . . .	5 90

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264 23

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\$15,220 76

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During the year one hundred and fourteen petitions for laying out streets, etc., have been received; the commissioners have made two hundred and thirty visits to different

sections of the city, and have given ninety legal hearings, besides many informal hearings where no final action has been taken. All applications for building permits are received daily from the Inspector of Buildings and are examined in relation to street lines and grades, where alterations are about to be made and new buildings erected.

The following reports and estimates of the cost of proposed street widenings, extensions, etc., on orders of the City Council, have been made during the year :

*C-street* extension to *Dorchester avenue*.

*Roxbury and Pyncheon streets*. Report on order in relation to change of name.

*Dorchester avenue, Dorchester, Swett, Boston, and Preble streets*. Report on order in relation to change of name.

*Waltham street*. Report on petition for laying out an open space as a square.

*Seaver street*, widening from *Blue Hill avenue* to *Walnut avenue*.

*Pleasant street*, widening from *Washington street* to *Park square*.

*Old Harbor court*, extension to *Atlantic street*.

*Atlantic street*, extension from *Old Harbor court* to *East Eighth street*.

*Granger street*, extension from *Duncan street* to *Dorchester avenue*.

*Mead street*, extension to *Bunker Hill street*.

*Bowen street*, between *B and C streets*:

*Green street*, widening on southerly side between *Staniford street* and *Chambers street*.

*Battery street*, widening on the southerly side from *Commercial street* to the *North Ferry*.

Since May 19, 1891, street releases have been prepared of private streets for the abutters to sign, releasing grade, and all other other damages, provided the streets should be laid out by the city ; also, releases for grade damages on public streets, as follows :

Boston Proper . . . . .	1
Charlestown . . . . .	3
East Boston . . . . .	3
South Boston . . . . .	2
Roxbury . . . . .	11
Dorchester . . . . .	17
West Roxbury . . . . .	13
Brighton . . . . .	17

Total

67

Previous to May 19, 1891, releases were prepared in the Surveying Department.

Under the Acts of 1891, chapter 323, the Board of Street Commissioners have granted permission to land-owners to build the following streets :

#### ROXBURY.

*Wyoming street*, from Wabeno street to Humboldt avenue.

#### DORCHESTER.

*Algonquin street*, from Washington street to Harvard street.

*Bradlee street*, from Washington street to Harvard street.

*Seaborn street*, from Centre street to near Kenwood street.

*Agawam street and Assabet street*, from Train street to Neponset avenue.

*Bournside street,*  
*Paisley park,*  
*Intervale park,*  
*Upland avenue,* } between Park street and Melville avenue.

*Wales street*, between Harvard street and Nightingale street.

*Saco street*, from Neponset avenue, near and south of Howe street.

*Tremlett street*, from Hooper street to Waldeck street.

*Moultrie street*, parallel with Centre street and near Washington street.

*Morse street*, from Bowdoin avenue to Washington street.

*Vinson street*, from Park street to Geneva avenue.

*Marlowe street*, from Park street to Vinson street.

#### WEST ROXBURY.

*Aldrich street,*  
*Newbury street,*  
*Cornell street,*  
*Brandon street,*  
*Berry street,* } between Beach street and the Old Colony Railroad.

#### BRIGHTON.

*Home avenue,*  
*Sorrento street,*  
*Seattle street,*  
*Goddard street,*  
*Windom street,* } near Cambridge and North Harvard streets.



*Whitney street*, from Market street to Murdock street.

*Strathmore road,*  
*Fenwick road,*  
*Renfrew road,*  
*Sidlaw road,* } between Chestnut Hill avenue and Commonwealth avenue.

*Burton street*, from Washington street to the proposed extension of Newton street.

Plans and profiles of the above-named streets have been filed in the office of the City Surveyor.

The following is a list of the real estate belonging to the city, in charge of the Board of Street Commissioners:

### CITY PROPER.

DESCRIPTION.	SQUARE FEET.
Water street, land and buildings . . . . .	393
Leased for five years from May 31, 1887, at \$3,720 a year.	
Harrison avenue, corner of Wareham street, land and building . . . . .	3,816
Leased for four years from March 1, 1888, at \$900 a year.	
Albany street, land opposite East Brookline street . . . . .	1,074
Rented for \$100 a year.	
Harrison avenue, land between Brookline and Newton streets . . . . .	4,740
Stoughton street, land, north-east side . . . . .	11,868
East Newton street, land, north-east side . . . . .	16,120
Albany street, land, north-west side . . . . .	6,247
Albany street, corner of East Newton street, land . . . . .	3,677
Albany street, wharves . . . . .	56,024
24,979 square feet leased for five years from July 1, 1887, for \$1,600 a year.	
26,024 square feet rented at \$1,600 a year.	
5,021 square feet used by the City Hos- pital.	

### CHARLESTOWN.

Rutherford avenue, land and buildings on south- westerly side . . . . .	20,068
16,600 square feet rented at \$600 a year.	
3,468 square feet rented at \$50 a year.	
Rutherford avenue, land on north-east side . . . . .	29,445
Small part of, rented at \$12 a year.	
Remainder occupied by City Departments.	

## SOUTH BOSTON.

DESCRIPTION.	SQUARE FEET.
East First and L streets, land . . . . .	33,700
East First and L streets, flats . . . . .	50,000
East Second street, land . . . . .	42,000
N street, between East Second and East Third streets, land . . . . .	3,750
East Second street, east of N street, land . . . . .	15,209

## ROXBURY.

Swett street, land and building, old Small-pox Hospital . . . . .	111,431
10,660 sq. ft., leased for five years from Nov. 1, 1889, for \$300 a year.	
Building rented for \$300 a year.	
Fellows street, near Hunneman street, land . . . . .	25,470
Set apart for a playground, by order of the City Council; approved June 12, 1889.	
Hunneman street, land and building . . . . .	7,417
Building rented for \$200 a year.	
Tremont street, corner Heath street, land . . . . .	320,693
Ritchie street, land opposite the Marcella-street Home, . . . . .	22,716
Bainbridge and Kingsbury streets, land between . . . . .	2,642

## DORCHESTER.

Dorchester avenue and Gibson street . . . . .	208,750
42,000 square feet rented to Sewer Division of Street Department, at \$150 a year.	
32,600 square feet rented to Boston Water Board at \$125 a year. Balance rented at \$85 a year.	
Gibson street, land on southerly side . . . . .	27,040
Gibson street, land on southerly side . . . . .	27,890
Dorchester avenue and Park street, land . . . . .	274,000
48,267 square feet leased for three years from Oct. 10, 1890, at \$300 a year.	
Boston street, near Upham's corner . . . . .	1,345
Baker's court, old lock-up estate . . . . .	1,580

## WEST ROXBURY.

Moreland street, land . . . . .	30,421
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## BRIGHTON.

Western avenue, marsh, north-east of Western avenue and north-west of North Harvard street .	10,890
Parkman street, land on south-west side of .	5,000

## ISLANDS, ETC.

Great Brewster island, Boston harbor, about 16 acres

Rented for \$100 a year.

Apple island, Boston harbor, about  $9\frac{1}{2}$  acres.

Summer and Pleasant streets, in town of Everett, old gravel-pits . . . . .	20,700
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Marsh, about nine acres, in city of Quincy.

The yearly rentals from lands and buildings, in charge of the Board of Street Commissioners, amounts to \$10,142.

George C. Glover paid the city \$10 for grass on marsh at Squantum, for the year 1891.

By an order of the City Council, approved by the Mayor, Oct. 19, 1891, the "Wilson Hotel lot" at the junction of Washington and Cambridge streets, Brighton, containing 70,977 square feet, was transferred to the Department of Public Buildings.

Under an order of the City Council, approved by the Mayor, Oct. 19, 1891, 92 square feet of land, at the junction of North square and North street, was sold for \$240, with a deed conveying to the city 32 square feet to be used for street purposes.

Under an order of the City Council, approved June 11, 1891, 2,957 square feet of land, with the buildings thereon, at the corner of Bunker Hill and Tufts streets, Charlestown, was sold, Dec. 16, 1891, for \$6,025.

A record has been made and plans filed in Vols. 3 and 4 of "Plans of City Lands sold," of the following estates sold by the Mayor under authority of the City Council:

Warrenton street, near Tremont street, 3,078 square feet Sept. 9, 1891, for \$23,500. East street, between East-street place and Cove street, 14,385 square feet, Sept 30, 1891, for \$81,000. Hawkins street, in the rear of the Wayfarers' Lodge, 102 square feet, Oct. 7, 1891, for \$510.

Respectfully submitted,

JOHN P. DORE,  
ISAAC S. BURRELL,  
JOHN H. DUANE,

*Street Commissioners.*



ANNUAL REPORT  
OF THE  
LIBRARY DEPARTMENT,  
FOR THE YEAR 1891.

TO HIS HONOR NATHAN MATTHEWS, JR.,  
*Mayor of the City of Boston:*

The Trustees of the Public Library of the City of Boston have the honor to submit herewith their fortieth annual report.

An ordinance of the city requires that the trustees shall annually appoint an examining committee of not less than five persons, who, with one of the trustees as chairman, shall examine the Library and make to the trustees a report upon its condition.

In obedience to this ordinance, the trustees appointed in January, 1891, a committee whose report is submitted herewith.

Mr. Prince, of the trustees, acted as its chairman, but took no part in the preparation of the report.

This committee was constituted so as to fairly represent all portions of the community, and it was appointed as early as possible in the year in order that the members might have ample time and opportunity to examine most thoroughly the Library in all its branches and relations. The trustees appreciate fully the advantage of such an examination made by a disinterested body, which often detects weaknesses

likely to escape the notice of the most careful administration. They have always been greatly assisted by the suggestions and recommendations made by the different examining committees. They feel that their thanks and those of the citizens at large are due to the members of the present committee for the thorough and careful way in which they have performed their difficult task, and the valuable time they have devoted to it.

The trustees justly feel great satisfaction at the result of the committee's examination. They are aware that in the administration of so important a trust there must necessarily be some things open to a fair criticism. The present report, however, finds that the working of the Library has been successful beyond their reasonable hope. The examining committee finds nothing of importance in the condition of the Library, which it is its duty to examine, to bring to the notice of the trustees as requiring remedy. Its advice in regard to future action upon matters which are specially left to the discretion of the trustees, while not required by the terms of the ordinance under which the committee is appointed, will be taken as an evidence of the great interest of its members in the welfare of the Library, and will receive the careful consideration that the trustees always gladly accord to the suggestions of any of their fellow-citizens.

The trustees deplore the fact that the arduous duties of the examining committee did not afford the members leisure or opportunity to point out the deficiencies that must inevitably exist in so large a collection of books, and by their advice to assist them to strengthen the Library in departments that may be weak. In past years they have received great assistance from the reports of examining committees made by experts in different subjects: such as those by Dr. Harold Williams, of the last year's committee, upon medical books; by Mr. John Heard, Jr., of two years before, upon the literature of science and technology; by Dr. Horace Howard Furness on the Barton library; by Mr. Thomas Sergeant Perry on French literature; by Prof. William F. Apthorp on music, and by Col. T. W. Higginson upon the Parker library. But the trustees recognize how difficult it is to examine into so large an institution and to obtain anything more than a very slight knowledge of its workings in the short space of time that the most hard-working committee can devote to it in the year at its disposal, even if its attention is confined exclusively to the present condition and immediate wants of the Library.

The trustees have always been of the opinion of the committee "that it is very desirable that broadsides be placed conspic-

uously in the Library, with lists of books in the various arts and sciences," and have, therefore, from the foundation of the Library to the present, attempted, with more or less success, to carry into effect this idea. They agree with the committee that a list of books upon the subject of electricity as applied to the mechanical arts, could not fail to be of interest and service. Some months before the present committee was appointed, they began the preparation of such a list, which, they are pleased to say, will soon be given to the public.

The new special catalogues of History, biography, and travel, and of Historical fiction, recommended by the committee, have been for a long time in the course of preparation, and are now ready for the printer. By a curious coincidence, the first portion of the latter catalogue was published a short time before the trustees received the committee's recommendation.

The trustees are obliged to the committee for calling to their attention the dissatisfaction expressed by the people of Roxbury in regard to drawing more than one book at a time from the Roxbury branch, which is made up partly of books belonging to the city and partly of those belonging to the Fellows Athenæum. At present the same rules apply to that branch that apply to all the branches. The trustees will examine the subject carefully, and will correct any injustice that may have been done to the people of Roxbury. They regret that the people affected should not have made their dissatisfaction known to them at once.

The trustees appreciate the kind motive that prompts the examining committee to give them all possible "aid in the performance of their difficult and complicated task of adapting the accommodation of the new building to a great many purposes," by submitting to them the report of the sub-committee presented by Mr. Browne. Valuable as the report may be, they are of the opinion that it would have been of much greater practical use if the sub-committee had conferred with them upon the subject before drawing the report. By this means the sub-committee would have been able to avoid some mistakes as to facts which impair the value of the report, and which seem to have misled the whole committee.

The trustees, recognizing fully the great benefit of the patent library for the community, have always made it a subject of the most careful attention. In 1889, Mr. John Heard, Jr., of the examining committee of that year, as well as of that of the past year, recommended, in a special report, that the patent library be placed in a more convenient room than the one it then occupied on the third floor.

The trustees, after careful consideration of this recommendation, decided to remove the collection to the room on the first floor that was then known as the Fine Arts room, and was used as a reading-room for women. By this means more space and additional conveniences were gained for the use of the books. The change has met with the general and generous approval of persons who frequent the room, both by reason of its greater accessibility and enlarged facilities, occupying as it does the only large room at the disposal of the trustees, and being exceeded in size only by the Bates hall and the lower hall. The trustees have given special attention to the care of this room, and while the only serious complaint that has been received by them is that contained in Mr. Browne's report, a great many persons have taken pains to express their satisfaction with the arrangement and with the attention given to them by the library officials; the beneficial results of the change are touched upon also in the report of the examining committee for 1890.

These remarks are made in order that the city government may not be misled, as the examining committee apparently was, by the statements of Mr. Browne, which would seem to imply that no proper attention has been paid to the convenience of those who use this department, either in the present building or in the new building. While the trustees recognize the fact that many and great improvements over the present arrangement can be made when they have ample space at their command, they nevertheless desire to emphasize the fact that, in its present position, the patent library is not neglected, but affords great facilities for consultation and is of great positive value to the city. No further increase in room can be made without depriving the women of the only space devoted especially to their accommodation, and the trustees believe that their claims are entitled to as much consideration as those of any other persons.

The advice in regard to the new building would perhaps be of considerable value if it had been founded upon a knowledge of such facts as could have been easily obtained by inquiry of the trustees. It is a mistake to suppose that the room provided in the new building for the patent library is practically no larger than that in the old building. The present patent room measures 44 ft. by 27 and contains about eleven hundred square feet of floor space. The main patent room in the new building measures 65 ft. by 34 and contains about twenty-two hundred square feet. Opening from this room is one measuring 40 ft. by 37; both these rooms are provided with broad galleries and have a connecting room measuring 14 ft. by 40 and amply lighted

at each end, that can be used for copying or other purposes. The patent library at present consists of 4,500 volumes; the rooms provided in the new building have an accommodation for 70,000 volumes. If it grow beyond this limit, rooms above and below may be connected with them capable of accommodating 160,000 volumes, making the whole possible expansion of the patent library 230,000 volumes.

The space which the committee suggests for use as consultation-rooms and private offices is that which is best adapted in the whole building for the public, and the trustees do not believe that the citizens would look with favor upon any scheme which would devote this valuable space, or indeed any space in the building, to private offices for patent lawyers. Proper toilet accommodations have been arranged for this as well as for all other departments of the Library.

If the recommendation that experts be consulted in reference to the patent department is to be understood as implying that expert advice has not been sought and received, the committee certainly does a great injustice to the trustees who have at all times taken advantage of such expert advice as was available. They regret that no inquiry should have been made of them touching this matter. In addition to such outside advice as is to be had, they have always at hand highly-trained library assistants, who are familiar with the needs of the department and who are in constant contact with those who use it. In discussing all matters connected with the new building it should always be borne in mind that probably no library on this continent, or, perhaps, in the world, has a more highly-trained or efficient staff than that of the Boston Public Library. Certainly no persons not familiar from long experience with the peculiar needs of this institution could on most questions be trusted to give sounder advice.

The recommendation to adopt in the new Bates hall some noiseless material instead of marble for the floor is apparently based upon the mistaken supposition that access to the desk for the delivery of books to borrowers is to be through this room. This is by no means the case. The reading-room will be used solely by readers, and there will be an entirely separate room for the delivery-desk. It may be worthy of remark here that a marble floor has been used from the beginning in the large hall of the present building, and, so far as is known, there has been no complaint of its "sonority."

In the judgment of the trustees and of their predecessors, who have carefully studied the matter for years past, ample accommodations are provided in the new building for the readers who are now obliged to use the lower hall. In view



of the opinion expressed by the committee that this is not the case, the trustees have carefully considered this subject anew, and their unanimous opinion is that they have made no mistake. What is now called the "lower hall" in the old library, was established soon after the Library was founded, as a room connected with the main hall of the Library where books of a popular character would be more easily accessible to the public. For many years there was no division of the catalogue of the two rooms, and probably there would never have been a division had they not been located upon different floors. The separation was the result of an effort to relieve persons desiring books in the lower hall from the inconvenience of mounting stairs in order to consult the catalogue which was then in the Bates hall.

In the new building no such inconvenience will exist; all books in the Library, — which will contain a copy of every one now in the lower hall, — will be easily accessible to the public. Those who now use the lower hall will find ample accommodations in the new Bates hall, which is designed as a general reading-room for the whole people, and not for any special class. In other parts of the building there will be provided for students desiring to prosecute any particular line of research, almost three times as much space as is contained in the new Bates hall. While it is possible in the new building to provide, without alteration of the present plan, a room with ample accommodations for the collection in the lower hall, with separate and convenient access from the street, the trustees do not propose, at present, to set apart separate accommodations for that collection. If experience show that they are in error, and that the public desire a separation of classes, future trustees will be able to provide that separation without changing the present arrangement of the building. The present trustees, however, are of the opinion that the new building is built for the accommodation of all the citizens of Boston, without reference to so-called "class" or condition; and they are further of the opinion that the new Bates hall will not be too good for the users of the present lower hall, and that they would be false to their trust if they made any regulation which might result in an apparent separation of the poorer users of the Library from the richer.

The fears of the examining committee, that there will be inadequate room for the delivery of the books, appear to the trustees to be without foundation. A room containing twenty-one hundred square feet of floor surface has been provided, in the most accessible part of the main story, solely for the delivery of books. This room is entirely sep-

arate from the reading-rooms, and no reader will be incommoded by persons applying for books. Outside of this room five hundred square feet of floor space is reserved for the delivery attendants. The delivery-desk is calculated to provide for at least four times the present combined circulation of the upper and lower halls, and is capable of extension to three or four times its present proposed length. This subject has been the matter of careful and constant consideration by the trustees from the inception of the project.

In regard to the suggestion that the appointment of a librarian will relieve the trustees of unusual responsibility, they would say, that whether or not a librarian is in charge of the building their responsibility remains the same. They are given by law the control and management of the Library and all its branches, and their responsibility cannot be shifted to any other shoulders.

The wonderful success of the Library has been due to the fact that the present trustees and their predecessors in the trust have felt the full weight of this responsibility, and have at all times refused to delegate any part of it to subordinates.

The trustees have considered the subject of the appointment of a librarian with great care. The qualifications for a librarian are peculiar, and it is difficult to find any person possessing them. When the trustees are satisfied that this position can be filled for the best interests of the Library, a librarian or superintendent will be appointed.

#### ADMINISTRATION.

In December, 1889, the present trustees opened Bates hall in the evening for the first time, and two months later they opened it to the public on Sunday, both for consultation and for the delivery of books for home use.

The experiment has, in both cases, proved so eminently successful that during the present year they felt justified in adopting the same policy at the largest branch library, that at South Boston. If time shows as good relative results there as at the central Library, it is hoped that the Sunday opening can be extended to the other branches.

Great benefit to the public has resulted from the increase of facilities for the use of the Library, accomplished by the removal of the large counter used by the desk attendants, and of the little-used desk at the northerly end of Bates hall. This change permitted a readjustment of the card-catalogue cases, which are now placed in the spaces between

the columns in such a manner as to make the alphabet consecutive and at the same time to render the cases easier to consult. The space thus gained permitted also the addition of many tables by which at least fifty more readers are accommodated. The removal of paint from the windows in the lantern has made the hall more cheerful and has greatly reduced the use of artificial light in the day-time.

The introduction of electricity has been of great advantage in improving both the ventilation and light as well as in preventing damage to books by the vapors given off by gas.

In the early part of the present year the apartments used by the former janitor became available for the better housing of bound newspapers and books; by this means twenty-five hundred square feet of much needed floor space was gained for library use. The removal of the newspapers from the room between the lower hall and Bates hall floors, and the relegating of the work of arranging the periodicals coming from the reading-rooms after their first use to the book-department, where they are more satisfactorily and expeditiously attended to, afforded a commodious place for the duplicate books, which for many years had been piled in heaps in a dark basement room, where they were rendered practically useless for lack of space. These duplicates, amounting to some twelve thousand volumes, are now properly shelved, and a list is preparing by means of which they may be better known and disposed of, either by supplying deficiencies in the Library or by sale or exchange.

The large mass of combustible material that was for many years permitted to accumulate in the basement has finally been removed. The entire fire-extinguishing apparatus, which was found utterly unserviceable, has been put into good condition, and an actual test of its efficiency is now made every month. These, together with other changes in the arrangement of the basement, have tended to improve greatly the sanitary condition of the building as well as to ensure its safety.

The administration has been in many ways simplified and the character of the service rendered more efficient. Great and needed improvements have been made to facilitate the registration of applicants wishing to become card-holders, and to afford relief from some of the formalities, which, although once considered indispensable, have been found in practice to be unnecessary; and in general, every effort has been made to promote the use of the Library by the people. Long experience has shown that the great mass of those who use the Library do not abuse the privileges afforded them. The trustees have therefore considered it better to reduce to the

lowest possible limit all obstacles to the freest circulation of books, and to run the risk of small and insignificant losses, rather than to incommode the public by annoying restrictions.

Boxes have been placed in the public halls for the reception of complaints to the trustees, but the number of complaints has of late been noticeably small. The trustees desire again to call the attention of the public to these boxes, with the assurance that all complaints will be promptly and fully considered, and if well-founded, acted upon.

During the past year very few recommendations for books have been received from the public. This is apparently due to the fact that, with the increase of the Library, fewer deficiencies are discovered.

As the Library has grown in numbers and the hours of use have been extended, considerable trouble has been occasioned by the misplacement of books. In the present building no satisfactory remedy can be applied to this evil, but it is believed that with the improved organization which is contemplated in the new building, it will practically cease to exist.

The change of the limit of age for users of the Library from fourteen to twelve years has had the effect of extending the usefulness of the institution, as has also the rule whereby inhabitants of the city who are entitled to register are permitted to borrow books for home use without presenting a card upon depositing the value thereof. The Library privileges have been extended to officers and enlisted men of the United States Army and Navy who may for the time being be stationed in Boston or vicinity.

During the past year two janitors have performed satisfactorily all the work formerly done by three. The letting of the miscellaneous carpentering, etc., by contract to one person, instead of making use of the expensive and unsatisfactory method of employing outside mechanics, has saved time and money, and fixed the responsibility for the proper performance of the many and varied petty pieces of work that are constantly needed in and about the central and branch buildings.

The revision of the registration begun in 1886, which was the first in eighteen years, is practically completed and all the re-registrations made, so that the figures for the past year, amounting to 11,502, represent new applicants for cards. This number compares favorably with those of the years preceding the revision.

This revision has corrected many abuses and cut off excrescences and dead wood. It has shown that numbers of

people were holding more cards than they were entitled to. In one case, which is the type of a great many, a person was discovered who had registered five separate times and who was using the five cards thus obtained, — a course manifestly calculated to help the circulation, but hardly consistent with a due regard for the rights of others. The principle of the system used in the examination of the shelves is applied to the revision of the registration, so that it goes on continuously and is completed in each period of twelve months. By this means the great inconvenience to the public by a re-registration will in the future be avoided. Abuses such as those referred to above are now impossible, and a glance shows whether a registration is alive or dead, whereas under the old system this could be determined only by a constant surveillance of a suspected case, the only clue in any case being the surrender of old cards for new ones.

#### BINDING.

The question of the binding of books is becoming each year more serious. Some time since the trustees effected a complete reorganization of the bindery department with a view to reducing the cost as well as to improving the quality of the work. The result has been so satisfactory that in spite of the steady increase of the number of books bound and repaired, a saving of some \$4,400 a year has been effected in salaries alone, and the quality of this binding compares favorably with that of former years. A plain, serviceable, and uniform style has been adopted for all books, while an experiment has been made of binding newspapers in cotton duck with a stout loop of the same material over the backs by which the heavy volumes can be easily handled.

At the present time a great number of bindings are becoming unserviceable, not so much from rough handling or extraordinary wear and tear as from simple disintegration caused by age, heat, and noxious gases. In the early days of the Library great masses of new books were put upon the shelves. The bindings of these books seem to have reached the limit of serviceableness almost simultaneously and all need attention at once. Within a short time some twenty-five hundred of these books have been removed from the shelves, and must be bound before they can be used by the public. This work must be done in addition to the ordinary work of the department. It would be in the interest of economy, and of benefit to the public, if means were placed at the disposal of the trustees, to enable them to have all the

books of the class referred to bound as soon as possible. As delay will only increase the number of books needing rebinding, as well as the difficulties attending it, the trustees respectfully urge the necessity of an extra appropriation of \$6,000 for this purpose.

### BOOKS.

Toward the end of the year 1890 the trustees consolidated the shelf-department with the ordering- and receiving-department.

By this arrangement they were able to dispense with the services of three assistants, two of whom had received a salary of \$1,000 apiece. The head of the new department thus formed has charge of the ordering and care of all the books in the library. This change has resulted in greater efficiency of service, though the increased duties are performed by a reduced working force.<sup>1</sup>

An analysis of the work of this department shows that the Library has developed with remarkable evenness during the last four years, and that no class of books has been neglected.

The system of recording gifts has been changed. By entry in a single book with an alphabetical index, the hitherto complicated methods are simplified, and the names of the benefactors of the Library are recorded side by side with a description of their gifts.

Great attention has been paid to the method of buying books and periodicals both at home and abroad, and the whole system has been placed upon a business basis. It is believed that a decided saving has been made in this direction and that the Library buys its books at the lowest possible prices.

The cumbersome order-sheets and accession lists are no longer used, and in their place a compact order-book has been substituted, in which are found all data necessary to trace the history of each book from the time it was ordered to the present.

The plan of notifying agents by postal card of the publication of books necessary to complete sets in the Library has produced a gratifying promptness in the remittance of the desired volumes.

	1888	1889	1890	1891
Books added to Library . . . . .	12,916	14,636	15,519	21,783
“ “ Bates hall . . . . .	9,686	11,736	13,518	15,564

Within a short time the branch libraries have been provided with sets of the latest edition of Appleton's Cyclopædia, with the annual volumes to date and complete indexes. These libraries have also been furnished with the latest reference-books and a large selection of volumes issued in popular series, such as the "American Commonwealths," "American Statesmen," "Epochs of History," "Stories of the Nations," Sir John Lubbock's "Hundred Books," so far as published, and others. These publications have the advantage of presenting information upon the topics treated in the most convenient form used by the general reader. It is thought that the addition of this class of books will greatly extend the usefulness of the branch libraries.

The character of the books purchased during the past year has elicited commendation from many visitors who, by virtue of their wide range of learning, are regarded as authorities. The best fruits of modern thought have been culled from the bibliographical lists which are daily examined in the Library and the carefully prepared selections are submitted for approval to the trustees, who give this most important subject their closest attention.

The trustees hope that during the coming year their endeavors to procure from the authorities at Washington a set of the United States patents, classified by subjects, will be successful. An accession of this character will add greatly to the usefulness of the patent department.

The annual examination of the Library shelves, previous to 1869, was effected by closing the Library outright for a month. The trustees of that year, acting upon the advice of Mr. Winsor, then adopted the present system which entirely obviates any necessity for closing even for a day. The examination is prosecuted continuously throughout the year by means of the written shelf-lists, so that the circuit of the alcoves is made in twelve months. This task is rapidly assuming formidable proportions. Each year's accessions add greatly to the difficulties and the time is not far distant when it will require the constant services of one competent person.

The list of gifts that will be found in the appendix shows that the friends of the Library are both numerous and liberal. The most noteworthy gift is that of 2,463 volumes received in March, by bequest of the late Miss Caroline Coddington Thayer. These books were the remainder of her valuable and remarkable collection of finely illustrated books, portfolios of portraits, and memorials of Theodore Parker, the greater part of which had been given by her from time to time during her life-time and deposited with the books be-

queathed by her late sister, Miss Eliza Mary Thayer, in 1877, the whole forming the Thayer library.

From His Excellency, Gen. Porfirio Diaz, President of the Republic of Mexico, was received the magnificent work "Monumentos del arte Mexicano antiguo," in three large folio volumes; and from the family of the late J. Ingersoll Bowditch, Esq., four volumes comprising letters to or from his father, Dr. Nathaniel Bowditch, relating mainly to the translation of Laplace's "Mécanique Céleste."

The trustees avail themselves gladly of this opportunity to express their hearty appreciation of the many proofs of good will as manifested by these generous gifts, whether prompted by a desire to respond to a request or as a spontaneous outcome of a widespread and deep-rooted interest in the welfare of this noble institution.

#### BRANCH LIBRARIES.

Considerable change has been effected during the past year in the organization of the branch libraries, some of which are referred to under the subjects of "Circulation" and "Catalogue." An inspector of the branch libraries has been appointed, whose duty it is to keep the trustees informed of all matters needing attention.

Arrangements are being made for the establishment of a delivery station and reading-room in the West End, as soon as a proper room can be hired. A delivery station on Wayland street, near the Bird-street station of the New York & New England railroad, in Dorchester, has been opened.

The North End branch has been removed from the ill-lighted and unhealthy room in which it had been located for eight years, to a room in the second story of 166 Hanover street, which receives light from that street as well as from Salem street. The removal from a ground-floor location has proved advantageous by preventing annoyances from mischievous boys. The change has given great satisfaction to the library attendants and to the public.

Extensive repairs have been made on the Brighton branch, which has been put into thorough order.

#### CATALOGUE.

During the past year 38,343 volumes and parts of volumes have been catalogued, and 93,089 cards have been printed, inscribed, and placed in the various catalogues of the Library, an increase over the work of last year of 4,252 volumes, and 4,482 cards.

Four numbers of the bulletin have been published. Be-



sides the titles of new books added to the central Library, these contain the following additional matter :

The conclusion of the Bibliography of the official publications of the Continental Congress.

Lists of books on costume and genealogy ; on Spanish and Portuguese books ; on Rousseau ; and a catalogue of the foreign literature in the lower hall.

A new catalogue of History, biography, and travel has been prepared for the lower hall, and will soon go to press.

A catalogue of books added to the South Boston branch library since 1879 has just been published.

The librarians have been taught at the central Library to compile, prepare for the press, and read the proof of the finding lists that have proved so successful.

The trustees in their last report expressed the opinion that the branch librarians should be charged with the duty of preparing their catalogues. The experience of the past year has shown that they can attend to this duty without interfering with the other work required of them. They are also making an effort to improve their card catalogues and to render them more helpful to readers.

Work of consolidating the titles in the catalogues at the various branches has begun and will be carried on as rapidly as other duties will permit, with a view to printing them at some future time.

Considerable assistance in the cataloguing of books for Bates hall has been received from the branch librarians, who have been regularly assigned for instruction at the central Library.

The revision of the card catalogue and the substitution of printed cards for the written ones and those in obscure type is being pushed as rapidly as possible.

It has been the policy of the trustees to cause new books to be catalogued and placed within the reach of the public without delay, leaving the older and less important books until opportunity offers.

The following work is in progress :

1. Catalogue of works on electricity.
2. Catalogue of works on architecture.
3. Catalogue of fiction and books for the young, to supplement the lower hall catalogue of 1885.
4. A new and much enlarged edition of the Historical fiction catalogue. The first instalment, *America to the Revolution*, will be found in the bulletin for January, 1892.
5. Catalogue of the French literature in the Bates hall collection.
6. The portraits of Benjamin Franklin.

7. The collection of early American books given by Mrs. John A. Lewis will be published this year, accompanied by a Mather bibliography.

8. Catalogue of folk-lore literature.

This department has been partially reorganized with a view to economy and efficiency, and the result has been in the main satisfactory, as will be seen by the following summary of work from 1888 to 1891 :

	1888	1889	1890	1891
Number of persons employed . . . . .	16	16	15	13
Books catalogued, volumes . . . . .	37,028	32,337	34,091	38,343

Ten numbers of the bulletin have been printed in the same period, eight of them in the last two years, containing in addition to the titles of new books the conclusion of the index to articles on American local history, a catalogue of bibliographies of special subjects, the catalogue of the books bought at the sale of Mr. Barlow's library, the Columbus letter, and other matters already mentioned.

The Barton catalogue was published in 1888, and the new edition of the Hand-book for readers in 1890. Two finding lists have been printed for each branch library and a supplementary catalogue for East Boston and South Boston.

The card catalogue is the true point of contact of the public with the organization of the Library, and as a matter of course, its condition of serviceability and adaptability is a source of constant solicitude to the trustees. Notwithstanding its many defects and inherent inconsistencies, it is probably the best piece of work of its kind available for popular use, and for many years it has been accomplishing even more than could have at first been safely predicted of it.

But the large volume of new books steadily flowing in necessitates an annual increment of cards, until the vast size of this catalogue gives rise to a serious problem, which must soon be definitely solved.

Last year about 45,000 of the 93,000 new cards printed were added to what must have been, at a safe estimate, over a million already in the over-crowded drawers of the public card catalogue in Bates hall.

The serious objection to this immense collection of cards is, after all, not merely its size, but the fact that all sense of proportion and relative importance is lost. Under the

heading Astronomy, for instance, a large number of important works will be found arranged among a still greater number of those of less consequence on the same subject. These minor works are of some value and should certainly be preserved, but it is evident that, as the catalogue increases, the difficulty of differentiating easily between authoritative and less valuable works will become greater and that a person consulting this subject will in most cases — as not unfrequently happens now — become discouraged.

It is beyond dispute that almost any form of print is a relief from this state of things, and several schemes for printing have suggested themselves to the trustees, but none is at present settled upon; for the least alteration in so well defined a method as must prevail in a large catalogue involves serious consideration.

One plan is to print the titles in each drawer as it stands; in this way at least economy of space is gained. Another suggestion is to supply the public as rapidly as possible with sensible and untechnical finding-lists, and these undoubtedly will be issued to some extent, in any event.

It could be wished, however, that the public might feel inclined to avail itself with more readiness of the printed methods already at hand for its relief. The bulletins and special catalogues will lighten its burdens considerably, if it will look into the merits of such aids.

Any theory of cataloguing is, to a degree, always upon trial. It is by no means certain that the so-called dictionary system is the best, for the simple reason that the problem of indefinite extension has never yet become a menace. The experience of other large libraries is not, however, without its value; and it is safe to say that, to a majority of such institutions, an author-catalogue, full and scholarly, is the basis upon which all other cataloguing efforts must rest. The British museum is now printing its author-catalogue by letters, its manuscript catalogue-folios having become no longer practicable.

This perfection of an author-catalogue does not in the least interfere with efforts towards expanding the usefulness of a subject-catalogue, but it certainly seems to point in the direction of a possible separation of these two distinct lines of work. The long-held notion that a dictionary system is capable of limitless expansion would seem to be no longer tenable. The portion devoted to author-titles must be extended if an arrangement in a single alphabet is still to prevail. If the British museum, with 2,000,000 books, finds an author-catalogue practicable, this Library containing

about 500,000 books cannot afford to be too radical in its departures at present from accepted methods.

The subject-catalogue, however, is a different matter; beyond a certain limit — which is fast approaching — the larger it is, the less useful it becomes. To overcome its manifold objections, several methods are under the consideration of the trustees. They are fully alive to the difficulties before the public and themselves in this matter, and feel that in this separation of the dictionary card-catalogue may lie the solution of a disturbing problem. So impressed are they with the necessity of affording some relief that they propose during the coming year to make the experiment of printing class-lists of certain of the larger subjects represented in the catalogue and substituting them for the subject-reference cards which may then be removed from the cases. The alphabetical author-list will of course remain undisturbed.

#### CIRCULATION.

The trustees are much gratified with the result of their inspection of the circulation of the past year, although there has been a considerable decrease in the number of books lent from the lower hall and branch libraries. This decrease is attributable entirely to the failure to provide a low grade of books of fiction. In all branches except fiction there has been a gratifying increase in the circulation. Some years since the trustees began to eliminate from the Library all books of fiction of an objectionable character. During the past year this policy has been applied more rigorously and systematically, with the result expected, in view of the experience of past years; but it is believed that the loss in circulation will be temporary. At all events, whether temporary or otherwise, the trustees do not believe that the circulation should be increased by supplying weak or improper books or papers to children.

The Bates hall collection, which is the great storehouse of books of real value, has been more used than in any previous year in the history of the library.\*

It is believed that if better accommodations could have been afforded for readers, the increase would have been even more marked. It is gratifying to observe also that the use

#### \* Bates hall.

Average circulation for thirteen years preceding 1888	163,199
Smallest circulation in same period (1875)	80,737
Greatest circulation in same period (1886)	203,473
Circulation 1888	228,574
Circulation 1889	214,097
Circulation 1890	271,459
Circulation 1891	290,516

of the various reading-rooms has increased in spite of the removal of some papers which were supposed to be of a popular character, but which experience had shown to be objectionable.

The trustees have always acted upon the principles laid down by the founders of the institution, and have endeavored to place before readers healthy and attractive current literature, as well as the best literature of all time. Sensational and highly-colored novels can be easily bought by those who desire nothing else, but it is to be hoped that by furnishing books by the best authors, in sufficient quantity and without cost, a taste for healthy reading may be encouraged.

It is a matter of regret that so many of the older books are out of print and cannot be replaced when worn out, for new books do not take the place of the tried and popular favorites.

Of course a most important mission of the Library is to furnish books, on literary, scientific, and industrial subjects, that would otherwise be out of the reach of students and artisans. This whole subject has been thoroughly discussed in previous reports both by the trustees and by the examining committees, particularly in that of Mr. E. J. Holmes, in 1888, and of the Rev. Dr. Herrick, in 1889, in which the present policy of the trustees is fully explained and approved.

It would be easy at any time greatly to increase the circulation by a return to the plan adopted in 1877 and continued for fourteen months (covering the period of the greatest circulation previous to last year), when books were limited to seven days with the privilege of renewal at the end of that time, whereby a large number of books were in effect counted twice; or it could be inflated almost without limit by augmenting the accessions of fiction and duplicating to a great extent the copies of the last new books. The true value of a circulation is to be found in the quality, not quantity, of the books used, and the trustees believe that the increase of the Library during the present year, when judged by the number, value, and usefulness both of the books added and of those read by the public, is as satisfactory as that during any previous year in the history of the institution.

#### THE SERVICE.

Early in 1889 the service of the Library for the first time was systematized and graded and salaries were made to attach to the various grades and not to depend upon personal considerations. Promotion to a vacancy in any grade is now

made by advancing the senior in the next lower grade, the salaries being made to increase automatically each year according to the scheme fixed by the trustees when the system was adopted, the third year's salary in any grade being the maximum. That this has been a decided advantage both to the trustees and to the employés is obvious.

The trustees have observed with pleasure the increased activity in all departments of the Library and they appreciate fully the zeal and energy with which their endeavors to promote the prosperity of the Library have been seconded by all persons in the service. Without this devoted and skillful assistance the efforts of the trustees would not have been so fruitful of results.

On the thirteenth of February last the Library lost, by the death of Miss Eliza J. Mack, one of its most faithful and trustworthy servants. Miss Mack entered the Library as an employé in the lower hall in 1863, and for twenty-seven years rendered most valuable and efficient service. The trustees desire to record the expression of their sincere sorrow for her loss.

#### NEW BUILDING.

The work upon the new building has been pushed steadily forward. Considerable delay has been caused by the postponement until late in the year of the appropriation for the completion of the work, as no contract could be made until the money called for by it was actually appropriated by the city council. However regrettable this delay may have been as deferring the opening of the building to the public, the work itself has not suffered from it; on the contrary, the ample time afforded for the masonry to dry thoroughly before the interior finish is begun, has been a positive benefit. The amount of work done and the financial statement for the year will appear in the report of the clerk-of-the-works submitted herewith.

The trustees have lately received and placed in the staircase-hall of the new building two sitting lions done in Siena marble, the work of Louis St. Gaudens, the gift of the Second and of the Twentieth Massachusetts infantry associations, in memory of the members of those regiments who fell in the civil war. The work of the sculptor is worthy of the regiments whose deeds it commemorates.

In December, 1890, the trustees, after the careful consideration of a very thorough detailed estimate made by the architects, informed the city council of the sum that in their opinion would be required to complete the building. The council thereupon empowered the mayor to petition the gen-

eral court for leave to borrow money for this purpose. After a very careful and exhaustive hearing upon this petition, an act was passed empowering the city to borrow and appropriate the needed money outside of the debt limit, and after an extended investigation and discussion, the city council availed itself of the power thus granted and appropriated one million of dollars. The trustees feel confident that this amount will be sufficient to complete the building, including necessary shelving for books. The appropriation was based upon the most careful estimates, and during the long time that has elapsed since they were made, the trustees have seen no reason to doubt their correctness.

The general plan of the library building was determined upon after a very long and careful consideration by the board of trustees, of whom Mr. W. W. Greenough and Dr. James Freeman Clarke, were members. This plan has not been materially changed, and the trustees believe that the public will appreciate its value when the new building is ready for use. Certainly no two men at that time had greater experience in and knowledge of what was required than Mr. Greenough and Dr. Clarke, the first of whom had been in effect the manager of the present Library for twenty-two years.

While all libraries of importance both in this country and in Europe were carefully studied before the plans were made, it must be remembered that the Boston Public Library is unique among the great libraries of the world; for it combines a great collection of books for study to be used only in the building, with a free circulating library open to every citizen, under the freest possible conditions. Great libraries like the British museum, Bibliothèque nationale, the Lenox and Astor libraries, and others, are for the accommodation only of students who wish to consult books within the library itself; the Boston Athenæum and libraries of that class belong to private proprietors; the libraries of Congress and of Harvard university have but a limited constituency; while the Boston Public Library must at all times be open for consultation to every person in the world who desires to avail himself of the privileges, and for the purpose of lending books for home use to all citizens of Boston without distinction.

There are smaller libraries that have followed in the steps of the Boston Public Library, but these were not yet in the position to afford great aid in determining the plans for the new building. While it was scarcely probable that better expert advice than that to be found in the officers of the

library was available, still the trustees and the architects made use of all expert advice that could be had.

After the plans were prepared, but before the building was begun, they were exhibited for the inspection of the public for more than a month in the Old state-house, where they were open to the fullest and freest criticism. They were approved by the general public and by the city council, and, so far as the trustees are aware, no serious objection was urged against them.

The first question to be decided was whether to place the mass of the books in what is technically called a "stack,"—that is to pack the greatest number in the smallest space—or whether to distribute them through the library in different rooms. The consensus of opinion at that time seemed to be that the stack system was the best for a library of the nature of the Boston Public Library.

The system of distribution in different rooms, while it might be practical for a library for reference only, was not considered so for a library combining circulation with reference. To a limited extent this system was adopted with the stack system for the new building, for, while the great growing mass of books is to be placed in stacks where they are most easy of access for delivery to the public, the many special collections of books not given to circulate, such as the Patent library, the Ticknor library, the Bowditch mathematical library, and others, will be placed in alcoves where they can be easily consulted.

The stack was the subject of very careful study. It was at first attempted to find a plan by which it could be lighted by natural light. Hundreds of plans were prepared and studied, but all were found unsuitable for a building situated like the proposed one. The first requisite of the stack must be freedom from danger by fire, internal or external; but it was found impossible to construct such a stack, with necessary light on all sides, which should be entirely free from danger from outside conflagrations.

As it was determined that the library should be kept open at night and not closed at sunset (as is the case with most other great libraries), artificial light had to be provided for some portion of the day in any event. It was therefore accounted best not to rely upon natural light alone, but to introduce only such as could be done with safety. The stacks will be lighted by about ninety windows, which will permit of sun and light sufficient for the good of the books, and in parts of the day no artificial light will be needed in any portion. Had it been necessary to rely upon gas for light, there might



have been serious objections to this plan ; but by the use of electricity all the deleterious effects of gas will be avoided.

Each story of the stack will be entirely separated, so that the heat and gases cannot rise to collect and no fire can spread.

Upon further consideration it was decided that a stack calculated to hold the large number of books which the rapid increase makes it necessary to provide for, would be too extensive for the rapid delivery of books by the present system of pages, and that some mechanical device must be used to send books to and to receive them from the stack. This point being decided, the problem was somewhat simplified ; for, with books delivered by machinery, a hundred feet of distance more or less will make practically no difference in time. The stack, therefore, in its present condition, was decided upon.

The next important question was the delivery of books for home-use and for reference, and the present position of the delivery-room was determined upon as being the most accessible and convenient for the public, as well as being the most nearly central position with reference to the stack.

This waiting-room with the delivery-desk was calculated for the accommodation of a much larger number of users than will probably ever gather there at one time. It contains quite as much available floor space as the present entire Bates hall, and, if necessary, the delivery-desk can at some future time be extended to a length of sixty feet. The space provided for the library attendants back of the desk itself covers five hundred square feet.

This delivery-room is effectually separated from every room devoted to readers or students, so that persons who wish to draw books for home-use will be able to do so without disturbing a single reader.

The main reading-room, which will be known as Bates hall, was the subject of the most careful study. Considerations of economy made it necessary to provide one large room for the general public, so arranged as to allow proper supervision by the smallest number of attendants. Considerations of heating, light, and ventilation made it necessary that this room should be lofty.

The trustees were greatly influenced also by the feeling that the chief room of the building, to which it was to be hoped the people would resort for many years for study and recreation, should be in every respect suitable for the purpose for which it was to be used, and while it should be convenient, light, and airy, should also be of considerable architectural importance.

The question of light throughout the whole building has been carefully considered from the beginning, both by the architect and by the trustees. Never for a moment has the necessity of ample light for every room been lost sight of. After a most careful consideration of the matter by the architect, who has been aided by other persons having special knowledge of the subject, he has lately, as always, assured the trustees that every room will have abundant light for the purpose to which it is devoted. This they are assured is capable of almost exact mathematical demonstration. Care has been taken to introduce light as far as possible from the upper part of the wall spaces so as to light thoroughly every part of the rooms.

While great care and attention was devoted to the providing of suitable accommodations for the public, the working departments and the needs of the library staff and attendants were not forgotten or neglected, and it is believed that the building when occupied will be found defective in no material particular.

In short, the building was carefully planned for the special work to be done in it, and with special reference to the public to be served. In the beginning the architect was instructed as to the needs of the library, and was told that no sacrifice of convenience or arrangement would be permitted merely for the sake of architectural effect. This rule has been rigidly followed. While great latitude for decoration was allowed on the exterior of the building and the approaches, and in the public vestibules and corridors, in the delivery-room and in Bates hall, the other parts of the building, while attractive, are severe and simple in form and color.

Economy and efficiency of the administration has been carefully studied in all the plans.

While the trustees have been of the opinion that the building should be monumental, and a temple worthy of the treasures it contains, and worthy of the citizens of Boston who own it, they have never lost sight of the practical side of the question, or sacrificed utility to mere architectural effect. They believe that utility and architectural effect are best attained together.

Whether the architect has succeeded in producing the best possible architectural effect, by so arranging the plan, the masses, and the enrichments as to impart to his work interest, unity, grandeur, and beauty, is a question upon which, as in the case of all important buildings, opinions must of necessity differ; but it may be fairly said the new building will compare favorably with any contemporary structure. It may

not be out of place to quote here the words of the former president of the Architectural league of America, who is recognized as one of the leading architects of the world. Mr. Richard Hunt, in his address delivered at the last annual meeting of the Architectural league, speaking of the new library building, said :

"The noble edifice . . . is a notable example, a landmark to which future generations will point with pride ; an enduring proof of the cultivated taste of our time and a glorious monument to the well-deserved fame of its designers, who, if I mistake not, were appointed by a board of trustees, after an unsuccessful competition.

"How fortunate that this board should have had the moral courage to express and stand by its opinion !

"The thanks of the community are due to all concerned in the erection of such a pile, and their names should be inscribed in some conspicuous place, as a testimonial of the gratitude and esteem of their fellow-citizens."

The trustees know how true an interest is felt by their fellow-citizens in every matter that concerns the Public Library, and they have sought therefore, at all times, the fairest and fullest criticism and endeavored to furnish all possible information in regard to every matter connected with it ; but they recognize the fact that the most careful report must fail to give a full account of all the details of the work they have in hand. In view, therefore, of some adverse criticisms in regard to the plan of the new building that have lately come to their notice, which, however, it is but just to say, they believe are founded upon insufficient information, they would be greatly pleased if your Honor, as the chief magistrate of the city, representing the whole body of citizens, would, with the aid of such expert advisers as may have your confidence, make a thorough examination of the plans of the building and of all matters connected therewith. They believe that the result of their labor will meet your approval, but if any mistake should be discovered, they will gladly apply such remedy as is possible.

SAMUEL A. B. ABBOTT.

HENRY W. HAYNES.

FREDERICK O. PRINCE.

PHINEAS PIERCE.

WILLIAM R. RICHARDS.

Adopted January 29, 1892.

Attest :

LOUIS F. GRAY,

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Clerk.

**[APPENDIX A.]**

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**REPORT OF THE EXAMINING COMMITTEE  
FOR 1891.**

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The examining committee find the library steadily growing in extent and influence. In the central library the crowded state of the shelves and of the working-rooms presents ever-increasing discomforts to the public and to the officials in charge, from which relief can be found only in the new building, which is steadily advancing to completion.

The difficulties now existing are well met, and the library is almost daily crowded by readers and students. In the Bates hall the condition of things has been found most satisfactory; the service is excellent, and the use of the hall is continually growing. On one occasion recently, twelve hundred books were given out at the desk in one day, which is at the rate of one hundred an hour, although of course the greater demand was in the later hours of the day, when several a minute must have been handed out.

Indirect but valuable testimony to the satisfactory state of this important part of the library is given by the book in which the public is invited to write down complaints and suggestions. These are almost entirely recommendations of new books, questions about volumes that are not at the moment upon the shelves, and requests for information upon a thousand different subjects, some of them of a most ingeniously puzzling kind. The answers are prompt, courteous, and satisfactory.

The committee think it very advisable that broadsides be placed conspicuously in the library, with a list of the recent acquisitions of books on the various arts and sciences most directly interesting the public. Such a list, for instance, of books upon the subject of electricity as applied to the mechanical arts could not fail to be of interest and service.

They also strongly recommend the preparation of new special catalogues, such as those of "History, Biography, and Travel," and "Historical Fiction," those already in existence being now incomplete, so long a time having elapsed since they were printed.

## THE SUB-COMMITTEE ON THE LOWER HALL

find the condition, of course, unchanged, as regards overcrowding and ventilation in the lower floor of the Boylston-street building; it is with impatience that they await the change to the new library. There is, of course, a great demand for books of a better class for children, and for books popularizing science for readers of all ages.

## THE SUB-COMMITTEE ON BRANCHES

desire to congratulate the trustees upon the great advantage accruing from the appointment of an inspectress of the branches, who has once a month consulted with the librarians, listened to their requests, and reported on the general state of affairs coming under her attention.

It is noted that the branch librarians are cataloguing their respective libraries, and it is hoped that this excellent work will be hastened as much as possible. The committee desire to call attention to the great usefulness, to both the librarians and to the general public, of the new finding-lists, which, to a great extent, fill the place of new catalogues. The circulation in the branches has not increased so rapidly as might be hoped, and there is a constant complaint of the lack of new books; this, the committee feel confident, is a want that will be met by the trustees as soon as the appropriations permit. There is a general desire among the librarians for permission to cover, as was formerly done, works of fiction and books for the young, these being especially liable to become ragged and soiled.

The committee desire to call the attention of the trustees to the dissatisfaction expressed by the people of Roxbury to the new rule which makes it impossible to draw one book from the branch library and one from the Fellowes Athenæum at the same time. The books in the Fellowes Athenæum correspond in character to those in Bates hall, and if the choice could be given of taking one volume from the Athenæum and from Bates hall at the same time that they take one from the branch, this dissatisfaction would be removed and the circulation of more serious books would increase; this is obviously desirable. The demand for books at the South Boston branch is well met. They still recommend, as was done last year, a larger number of books of the better class for children, and also books of reference for children; for both of these there is a large demand. The same call is also heard at the Dorchester branch.

There is much satisfaction expressed at the South End

branch with the new police arrangements which have prevented the disturbances frequent in former years.

The removal of the North End delivery station and reading-room from their former unsatisfactory quarters to a large, bright room in a central position is a great improvement. The circulation has already increased. The sub-committee suggest the better lighting of the stairway and hall, and hope that soon a branch library will be established in this part of the city.

The sub-committee call the attention of the trustees to the need of a delivery station at Jamaica Plain, on or near Chestnut avenue, and one at Roxbury, on or near Blue Hill avenue and Dudley street, and would recommend that the books for these stations be delivered from the Roxbury and Jamaica Plain branches.

The report from the Patent department of the Public Library is printed herewith as it was presented by Mr. Browne. The examining committee are convinced that it is very desirable that all possible aid should be given to the trustees in the performance of their difficult and complicated task of adapting the accommodations of the new building to a great many purposes. For the successful performance of this onerous duty nothing is better than a succinct statement of what is needed by the public and by experts who know by experience what is essential for this work. This paper, it is thought, cannot fail to be of assistance.

#### REPORT UPON THE PATENT DEPARTMENT.

During the past year I have frequently visited and made use of the Patent department of the library, and have carefully noted its condition and administration, upon which I have to submit the following report :

The inadequacy, both in plan and arrangement, of the space now allotted to this branch of the library has continued, as in previous years, to impair its usefulness to an extent which can only be fully realized by actual experience. Believing this to be, of all the departments of the library, the one which might contribute most directly to the practical benefit of the community, I feel compelled to speak in detail of its defects as now administered, some of them remediable in the present building, but all easily avoidable in the new one, by proper planning and arrangement.

The present patent-room contains about eighteen hundred square feet, of which nearly one-third is appropriated to other uses. The room is lighted by windows at one end only, and the light thus obtained is very insufficient. Arti-

ficial light must be used in some portions of the room at all times. The books are arranged against the walls in from nine to eleven tiers, extending from the floor. The backs of the three lower tiers of books cannot be read without stooping, and more than one-half of all the tiers cannot be reached by a person standing on the floor, but are accessible only by means of step-ladders, always inconvenient and often dangerous. The available shelf-room is now practically full, although a regular annual increase of a little over thirty feet must somehow be provided for. The crowding of the shelves has made it necessary to exclude from the room many works of reference, which, were it possible, should have their place there.

Considerable temporary relief from the inconveniences above noted might be obtained by giving to the Patent department the use of the whole of the room where it now is, and by putting into the space thus gained a number of low stacks which would give additional and accessible shelf-room. These stacks might be of a construction adapting them for use in the patent room at the new library, and their cost be charged thereto.

There are other defects of minor importance which might be remedied: for instance, some provision should be made for receiving hats, coats, and umbrellas; also the attendant in charge should be relieved of his present duties in connection with the Lower hall card-catalogue, as he cannot properly attend to these and his regular work in the Patent library at the same time.

The space allotted seems insufficient for the library of to-day, if anything more than sheer necessity be considered. Furthermore, this space should not be all in one large room, because the work to be done in the library is of widely varying character, the different branches of which cannot conveniently be carried on in the same department. A properly arranged Patent library is, more than any other collection of books, a workshop. There are drawings of large size to be not only examined, but duplicated. There are specifications to be not only read, but studied and discussed. There are also copies of them to be made, which work must often be done by women stenographers, and these should not be required to carry bulky and heavy volumes up and down dangerous step-ladders. There should be ample table-room and proper light for the use of draughtsmen and others. A separate room should be provided where consultation and dictation can be carried on without disturbing other users of the place, and proper special toilet accommodations should be close at hand.

I have had the honor in the past of suggesting to the trustees of the library the possibility of establishing and maintaining, in connection with the Patent department, a set of the United States letters patent classified according to their subject-matter. Such a collection, made accessible to the public under reasonable regulations, would be of the greatest possible value. It would be the only one in the country except that of the Patent Office itself, of which it should be a duplicate. It would be of the greatest advantage to all those persons in the community having to do with the useful arts, in number almost co-extensive with the whole body of our citizens. Its maintenance would require additional room, — about as much as that now proposed to be allotted to the entire patent collection itself, — but its direct value and benefit to the community at large would make it as practically useful a feature of the great new library as any that could be introduced there.

The Sub-Committee on the New Library Building felt that their inquiry was limited to practical questions of arrangement and working facilities, and in no way included architectural or artistic judgment.

Moved by the report on the Patent library printed above, the sub-committee has examined more closely into the provisions made for this department in the new building.

That this may be a useful consulting library according to modern standards, it should consist of:

1. The general stack in the consulting room.
2. The special stack (U.S. patent drawings, see Mr. Browne's report).
3. Two or more small drafting compartments.
4. One or more private offices.

Here, quite as much as in other parts of the library, ample light is essential; the lettering of the figures and drawing, which must be read with absolute accuracy, is always small and somewhat confusing, being engraved in light lines. It is impossible to trace or reproduce such drawings with poor accommodations and insufficient light. It is therefore suggested that space be allotted this library in the top floor, on the Boylston street-side, beginning at the eastern limit of the courtyard, and extending back not less than seventy-five feet (to the west), and that additional light be provided by means of a skylight in the roof.

The compartments for drafting and the private offices could occupy the space next to the windows looking on the courtyard, while the books could cover the north-east and west walls of the room. To avoid the inconvenience and danger of step-ladders, an iron gallery, wide enough to hold



a chair, with rails adapted for the support of a book, should run along the walls, at a height of about eight feet above the floor, a part of the space beneath being taken by the special stack. Every book would thus be accessible and in good light.

Before the details of arrangement and of the furniture are decided, it is respectfully suggested that experts in this department be consulted, and what is true of this need in this room is also true of the other special libraries.

The committee are glad to hear that it is intended to place in the library a photograph room. This room, we believe, could be made self-supporting. The details of its arrangement demand the advice of an expert.

It has been suggested to this committee to recommend for the floor of the great reading-hall the adoption of some noiseless material, inasmuch as sonority of a marble floor in a stone hall would exaggerate the sounds of footsteps, moving chairs, etc., and thus greatly disturb readers, who will be assembled in great numbers.

In the judgment of the committee, ample accommodations should be provided in the new building for the readers who now use the Lower hall. The committee have grave doubts whether this can be done by merging the more popular part of the library with the Bates hall, as has been proposed. This would involve doubling the number of readers using the desk for the delivery and return of books, necessarily much to their inconvenience. It seems likely that the result of such a union would be to discourage those who demand popular books from frequenting the new building. This would be a misfortune, and the committee venture to hope that the trustees will think it wiser to carry on in that building the general scheme of division which has worked so acceptably in the present one.

The committee desire to express the hope that the trustees will soon feel it possible to appoint a librarian to fill the vacancy which has now existed for more than a year. Such an appointment would relieve the trustees and officers of the library of their present unusual responsibility.

ANNA S. AMORY.  
JOSHUA P. BODFISH.  
MARTIN BRIMMER.  
ALEX. PORTER BROWNE.  
JOHN HEARD, JR.  
JAMES M. HUBBARD.  
ALICE LEE.  
THOMAS SERGEANT PERRY.  
ANNA E. TICKNOR.

## APPENDIX B.

REPORT OF THE CLERK OF WORKS ON THE NEW  
PUBLIC LIBRARY BUILDING, FOR 1891.

## CONTRACTS.

Lynch & Woodward, boilers, April 17, 1891 . .	\$2,869 00
Walworth Construction and Supply Co., heating apparatus, Sept. 14, 1891 . . . . .	\$5,153 00
Albert B. Franklin, radiators, Sept. 14, 1891 . .	\$6,480 00
David McIntosh, plastering; contract given by unit prices; estimated amount, Nov. 23, 1891 . . .	\$20,000 00

## PRESENT CONDITION OF BUILDING.

Façades and interior masonry walls completed. Granite platforms about three-fourths finished. Fireproof floors completed. Iron roof completed. Tile roof completed with exception of ridges and crests. Flat slate roof completed. Interior finish: Stonework in Bates Hall and lions in grand staircase have been set. Rough interior: part of terra cotta partitions and iron stairs put in; part of cellar floor laid and boilers set; heating plant is under way; lime for plastering of building has been stacked; part of rough plumbing put in. Bronze chéneau and copper gutters put up.

FINANCIAL STATEMENT OF WORK UNDER THE  
VARIOUS CONTRACTS, JAN. 31, 1892.

Contract with John T. Scully, dated May, 1888, for piling:

Amount of contract . . . . .	\$7,714 44
Payments made to date . . . . .	\$7,714 44

Contract with Woodbury & Leighton, dated Aug. 1, 1888, for foundations, cut-granite, brick masonry, and iron-work:

Total amount contracted for . . . . .	\$813,734 84
Payments made to date . . . . .	305,344 61

Reserve on work done . . . . .	\$2,500 00
Work not done . . . . .	5,890 23

Balance . . . . .	\$8,390 23
-------------------	------------

Contract with R. Guastavino, dated June 25, 1889, for fire-proof floors (tile arch work) :

Estimated amount of contract . . .	\$80,105 82
Payments made to date . . .	75,103 66
	<hr/>
	\$5,002 16
Reserve on work done . . . . \$5,002 16	
	<hr/>
Balance . . . . .	<u>\$5,002 16</u>

Contract with Woodbury & Leighton, dated July 22, 1889, for cut-granite, brick masonry, iron-work, freestone, marble, terracotta, carpenter work, glazing, partition blocks, and rough plumbing :

Total amount contracted for . . .	\$706,700 80
Payments made to date . . .	602,010 76
	<hr/>
Reserve on work done . . . . \$25,000 00	
Work not done . . . . . 79,690 04	
	<hr/>
Balance . . . . .	<u>\$104,690 04</u>

Contract with R. C. Fisher & Co., dated Aug. 21, 1889, for marble-work in entrance hall :

Total amount contracted for . . .	\$45,274 40
Payments made to date . . .	\$44,239 25
	<hr/>
Reserve on work done . . . . \$1,035 15	
	<hr/>
Balance . . . . .	<u>\$1,035 15</u>

Contract with Batterson, See, & Eisele, dated Aug. 21, 1889, for marble-work in staircase hall :

Total amount contracted for . . .	\$57,278 00
Payments made to date . . .	11,900 00
	<hr/>
Reserve on work done . . . . \$2,100 00	
Work not done . . . . . 43,278 00	
	<hr/>
Balance . . . . .	<u>\$45,378 00</u>

Contract with Post & McCord, dated April 12, 1890, for iron roof :

Total amount contracted for . . . . .	\$43,662 43
Payments made to date . . . . .	\$43,662 43

Contract with Lindemann Terra Cotta Roofing Tile Co., dated May 2, 1890, for tile roofing:

Original contract . . . . .	\$35,000 00
Net amount deducted . . . . .	5,424 00
Total amount contracted for . . . . .	<u>\$29,576 00</u>
Payments made to date . . . . .	21,342 37
Reserve . . . . .	<u>\$8,233 63</u>
Balance . . . . .	<u>\$8,233 63</u>

Contract with Lynch & Woodward, dated April 17, 1891:

Total amount contracted for . . . . .	\$2,869 00
Payments made to date . . . . .	\$2,869 00

#### GENERAL FINANCIAL STATEMENT, JAN. 31, 1892.

Amount of appropriation May 1, 1887 . . . . .	\$368,854 89
Amount of loan authorized by Statute, approved March 1, 1889 . . . . .	1,000,000 00
Amount of loan authorized by Statute, approved May 11, 1891 . . . . .	<u>1,000,000 00</u>
Total appropriations . . . . .	<u>\$2,368,854 89</u>
Total amount contracted for . . . . .	\$1,457,612 76
Total expenditures . . . . .	\$1,213,769 75
Balance of appropriations . . . . .	\$1,155,085 14



**APPENDIXES.**

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**1891.**

## LIST OF APPENDIXES.

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- I. EXTENT OF THE LIBRARY (BY YEARS).
- II. VOLUMES IN THE SPECIAL COLLECTIONS OF BATES HALL.
- III. INCREASE OF THE SEVERAL DEPARTMENTS.
- IV. BATES HALL CLASSIFICATIONS.
- V. GIVERS AND AMOUNT OF GIFTS.
- VI. CIRCULATION.
- VII. REGISTRATION OF APPLICANTS.
- VIII. READING.
- IX. FINANCIAL STATEMENT.
- X. LIBRARY FUNDS.
- XI. LIBRARY SERVICE.
- XII. LIST OF EXAMINING COMMITTEES FOR FORTY YEARS.
- XIII. LIST OF TRUSTEES FOR FORTY YEARS.

## APPENDIX I.

## EXTENT OF THE LIBRARY BY YEARS.

YEARS.			YEARS.			YEARS.		
		Total volumes in the Libraries.			Total volumes in the Libraries.			Total volumes in the Libraries.
1	1852-53	9,088	15	1866-67	136,080	28	1870-80	377,225
2	1853-54	16,221	16	1867-68	144,092	29	1880-81	390,982
3	1854-55	22,617	17	1868-69	152,796	30	1881-82	404,221
4	1855-56	28,080	18	1869-70	160,573	31	1882-83	422,116
5	1856-57	34,896	19	1870-71	179,250	32	1883-84	438,504
6	1857-58	70,851	20	1871-72	192,958	33	1884-85	453,947
7	1858-59	78,043	21	1872-73	209,456	34	1885	460,993
8	1859-60	85,081	22	1873-74	260,550	35	1886	479,421
9	1860-61	97,386	23	1874-75	276,918	36	1887	492,956
10	1861-62	105,084	24	1875-76	297,873	37	1888	505,872
11	1862-63	110,563	25	1876-77	312,010	38	1889	520,508
12	1863-64	116,934	26	1877-78	345,734	39	1890	536,027
13	1864-65	123,016	27	1878-79	360,963	40	1891	556,283
14	1865-66	130,678						

NOTE. — Many thousand pamphlets have been added, but are not included in the above figures. When bound they are regarded and counted as volumes.

In the various reading-rooms are the current numbers of 887 periodicals.

## VOLUMES IN LIBRARY AND BRANCHES, DEC. 31, 1891.

Central Library.	Bates Hall . . . . .	348,579	East Boston . . . . .	12,675
	Duplicate room . . . . .	19,007	South Boston . . . . .	13,238
	Lower Hall . . . . .	44,831	Charlestown . . . . .	27,600
	Total, Central Library .	412,417	Brighton . . . . .	14,266
Roxbury Branch.			Dorchester . . . . .	15,560
	Fellowes Athenæum . . .	16,264	South-End . . . . .	11,259
	City part . . . . .	16,209	Jamaica Plain . . . . .	11,793
	Total, Roxbury Branch,	82,473	West Roxbury delivery . . .	3,313
			North-End . . . . .	1,639



## APPENDIX II.

### VOLUMES IN THE SPECIAL COLLECTIONS OF BATES HALL.

	1881	1882	1883	1884	1885	1885 Dec. 31.	1886	1887	1888	1889	1890
Patent library . . .	3,066	3,142	3,259	3,382	3,478	3,513	3,641	3,796	3,965	4,097	4,218
Bowditch library . .	3,162	3,224	3,456	3,701	3,854	3,933	4,510	4,706	4,935	5,225	5,348
Parker library . . .	12,837	12,363	13,952	13,971	14,024	14,057	14,069	14,077	14,104	14,112	14,114
Prince library . . .	2,230	2,274	2,327	2,397	2,510	2,581	2,706	2,775	2,824	2,905	2,935
Ticknor library . . .	5,454	5,463	5,507	5,544	5,724	5,731	5,764	5,790	5,877	5,923	5,966
Barton library . . .	14,360	13,487	13,610	13,610	13,642	13,652	13,800	13,841	13,755	13,724	13,735
Franklin library . .	202	240	292	357	378	382	382	403	416	427	446
Thayer library . . .	...	893	920	1,085	1,123	1,175	1,217	1,280	1,368	1,427	1,500
John A. Lewis library . . . . .	...	...	...	...	...	...	...	...	...	...	...

## APPENDIX III.

### NET INCREASE OF THE SEVERAL DEPARTMENTS.

	1885 (8 mos.)	1886	1887	1888	1889	1890	1891
Bates Hall . . . . .	4,882	9,879	8,671	9,733	11,857	13,518	15,482
Lower Hall . . . . .	367	866	1,643	874	710	loss 50	loss
Duplicate-room . . . . .	377	loss 59	443	loss 52	330	419	2,141
East Boston branch . . .	85	236	168	170	63	58	
South Boston branch . .	113	303	310	284	159	116	3
Roxbury branch . . . .	122	363	262	280	199	146	9
Fellowes Athenæum . .	209	4,748	358	390	397	361	4
Charlestown branch . .	343	680	443	145	loss 70	233	41
Brighton branch . . . .	64	186	146	46	130	91	14
Dorchester branch . . .	276	590	546	423	309	269	23
Jamaica Plain branch . .	167	355	417	335	294	150	21
South-End branch . . .	20	loss 26	204	260	248	187	36
West Roxbury branch . .	10	13	25	20	6	10	-
North-End branch . . .	12	295	9	8	4	12	23
Total . . . . .	7,046	18,428	13,535	12,616	14,636	15,519	20,289

	Added.	Deducted, condemned, transferred or lost.	
Bates Hall . . . . .	15,840	34	{ Net gain in detail, as above.
Duplicate-room . . . . .	2,370	15	
Lower Hall and branches . . . . .	5,356	2,761	



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## APPENDIX V.

## GIFTS, JANUARY 1 TO DECEMBER 31, 1891.

Givers . . . . .	1,047
Volumes . . . . .	12,164

	Volumes.
Abbott, S. A. B. . . . .	186
Academia Nazionale de Medicina, <i>Lima, Peru</i> . . . . .	2
Academy of Science, <i>St. Louis, Mo.</i> . . . .	1
Actors' Fund of America, <i>New York City</i> . . . . .	2
Adams, Hon. Charles F., <i>Quincy, Mass.</i> . . . .	251
Adams, Mrs. F. A. F., <i>Roxbury, Mass.</i> . . . .	1
Adams Nervine Asylum . . . . .	1
Adelaide, <i>South Australia</i> , Public Library . . . . .	2
Agassiz, Prof. A., <i>Cambridge, Mass.</i> . . . .	1
Alabama Agricultural Experiment Station, <i>Auburn, Ala.</i> . . . .	8
Alabama Canebrake Agricultural Experiment Station, <i>Uniontown</i> . . . . .	14
Albany Medical College, Alumni Association, <i>Albany, N. Y.</i> . . . .	2
Allen, J. A., <i>New York City</i> . . . . .	1
Alumni Association of Lawrence Academy, <i>Groton, Mass.</i> . . . .	1
American Academy of Arts and Sciences . . . . .	1
American Antiquarian Society . . . . .	1
American Association for the Advancement of Science, <i>Salem, Mass.</i> . . . .	1
American Bankers' Association, <i>New York City</i> . . . . .	1
American Bar Association, <i>Philadelphia, Pa.</i> . . . .	1
American Bell Telephone Company . . . . .	1
American Book Company . . . . .	8
American Congregational Association . . . . .	2
American Economic Association, <i>Baltimore, Md.</i> . . . .	1
American Folk Lore Society, <i>Cambridge, Mass.</i> . . . .	1
American Home Missionary Society, <i>New York City</i> . . . . .	1
American Institute of Mining Engineers, <i>New York City</i> . . . . .	1
American Iron and Steel Association, <i>Philadelphia, Pa.</i> . . . .	8
American Peace Society . . . . .	8
American Pharmaceutical Association, <i>Philadelphia, Pa.</i> . . . .	1
American Postal Machines Company . . . . .	1
American Queen Publishing Company, <i>Bridgeport, Conn.</i> . . . .	1
American Society of Civil Engineers, <i>New York City</i> . . . . .	5
American Society of Microscopists, <i>Pittsburg, Pa.</i> . . . .	1
American Society of Railroad Superintendents . . . . .	3
American Veterinary College, <i>New York City</i> . . . . .	1
Ames, John N., <i>Chelsea, Mass.</i> . . . .	1
Andover Theological Seminary Library, <i>Andover, Mass.</i> . . . .	1
André, Mme. F., <i>Paris, France</i> . . . . .	1
Anonymous . . . . .	69
Appalachian Mountain Club . . . . .	1
Appleton, D., & Co., <i>New York City</i> . . . . .	1
Appleton, Nathan. . . . . 81 autographs, 1 woodcut, 5 broadsides	8
Appleton, William S. . . . .	3
Apprentices' Library Company of Philadelphia, <i>Philadelphia, Pa.</i> . . . .	1
Apprentices' Library, <i>New York City</i> . . . . .	1
Archæological Institute of America, <i>Chicago, Ill.</i> . . . .	1
Argentine Republic, Observatory . . . . .	1
Argentine Republic, Oficina Meteorologica, <i>Buenos Ayres</i> . . . . .	1

	Volumes.
Arngrimson, F. B. . . . .	3
Arnold, Howard P. . . . .	6
Arnoux, W. H., <i>New York City</i> . . . . .	1
Art Club of Philadelphia, <i>Pa.</i> . . . .	1
L'Art, Librairie de, <i>Paris, France</i> . . . . .	1 picture
Associated Charities of Boston . . . . .	14
Association for the Advancement of Women . . . . .	2
Association Générale des Etudiants de Budapest, <i>Austria</i> . . . . .	1
Association of American Physicians, <i>Philadelphia, Pa.</i> . . . .	1
Atkinson, Charles F. . . . .	23
Auburn Theological Seminary, <i>Auburn, N. Y.</i> . . . .	2
Austin, James W. . . . .	2
Babcock & Wilcox Co., <i>New York City</i> . . . . .	1
Baer, J., & Co., <i>Frankfurt a M., Germany</i> . . . . .	1
Baker, L. C., <i>Philadelphia, Pa.</i> . . . .	1
Baker, W. H. . . . .	1
Baker, Walter, & Co., <i>Dorchester, Mass.</i> . . . .	1
Balch, Mrs. J. W. . . . .	23 maps
Baldwin, Hon. C. C., <i>Cleveland, Ohio</i> . . . . .	56
Baldwin, J. M., <i>Ph.D., Toronto, Canada</i> . . . . .	1
Baldwin, S. E., <i>New Haven, Conn.</i> . . . .	1
Baldwin, W. H. . . . .	2
Balfour, David . . . . .	2
Ball, Nicholas, <i>Block Island</i> . . . . .	2
Ball, W. T. W., <i>Roxbury, Mass.</i> . . . .	4
Ballou, Maturin M. . . . .	1
Barrows, Henry D., <i>Los Angeles, Cal.</i> . . . .	1
Barrows, Mrs. Isabel C. . . . .	1
Barton, George A., <i>Harvard University</i> . . . . .	1
Battle, K. P., <i>Chapel Hill, N.C.</i> . . . .	1
Bausch & Lomb Optical Co., <i>Rochester, N. Y.</i> . . . .	1
Baxter, Sylvester . . . . .	2
Belfast, <i>Maine</i> , Public Library . . . . .	1
Bell, Hon. Charles H., <i>Exeter, N.H.</i> . . . .	3
Bell, Robert, <i>M.D., Ottawa, Canada</i> . . . . .	1
Bell st. Chapel, <i>Providence, R.I.</i> . . . .	2
Bellamy, Edward . . . . .	1
Benton, J. H., jr. . . . .	1
Berry, John N., <i>Millbury, Mass.</i> . . . .	3
Besolow, T. S. . . . .	1
Bethany Home for Young Women . . . . .	1
Biblioteca Nacional, <i>Santiago de Chile</i> . . . . .	2
Biblioteca Nazionale Centrale, <i>Florence, Italy</i> . . . . .	9
Bibliotheek der Rijks-Universiteit te Leiden . . . . .	12
Bibliothèque Nationale, <i>Paris, France</i> . . . . .	5
Bicknell, A. P. . . . .	2
Birch's Sons, Thomas, <i>Philadelphia, Pa.</i> . . . .	1
Birmingham, <i>England</i> , Free Library . . . . .	1
Bispham, William, <i>New York City</i> . . . . .	1
Blaisdell, F. C. . . . .	1
Blake, Sir Henry A. . . . .	1
Blake, Mrs. S. P. . . . .	periodicals
Blinn, H. C., <i>Canterbury, N.H.</i> . . . .	1
Blodgett, A. N., <i>M.D.</i> . . . .	1
Boardman, Waldo E., <i>M.D.</i> . . . .	24
Bolton, <i>England</i> , Free Public Library . . . . .	1
Bolton, Prof. H. C. . . . .	2
Boss, H. R., <i>Chicago, Ill.</i> . . . .	5
Boston, Board of Gas and Electric Light Commissioners . . . . .	1
—— Board of Health . . . . .	1
—— Board of Overseers of the Poor . . . . .	2
—— City Auditor . . . . .	87
—— City Council . . . . .	15

	Volumes.
Boston City Hospital . . . . .	276
— City Messenger . . . . .	152
— City Treasurer . . . . .	3
— Inspector of Milk and Vinegar . . . . .	1
— Protective Department . . . . .	1
— Record Commissioners . . . . .	15
— School Committee . . . . .	6
— Water Board . . . . .	3
Boston Art Club . . . . .	3
Boston Athenæum . . . . .	1
Boston Book Company . . . . .	1
Boston Children's Aid Society . . . . .	2
Boston Dispensary . . . . .	1
Boston Journal Company . . . . .	1
Boston & Maine R.R. . . . .	1
Boston Merchants' Association . . . . .	1
Boston Museum . . . . .	1
Boston Museum of Fine Arts, Trustees . . . . .	2
Boston North End Mission . . . . .	1
Boston Provident Association . . . . .	6
Boston Society of Civil Engineers . . . . .	1
Boston Society of Natural History . . . . .	2
Boston University . . . . .	1
Boston Young Men's Christian Association . . . . .	1
Bourinot, Hon. J. G., <i>Ottawa, Canada</i> . . . . .	5
Bowes, James L., <i>Liverpool, England</i> . . . . .	3
Bowditch, Family of J. Ingersoll . . . . .	4
Bowdoin College, <i>Brunswick, Me.</i> . . . .	1
Bowthorpe, S. T. . . . .	2
Bradlee, Rev. C. D. . . . . newspapers, periodicals, and broadsides	267
Bradley Fertilizer Company . . . . .	3
Bradt & Leland, <i>Chicago, Ill.</i> . . . . .	1
Braintree, Town Clerk . . . . .	1
Brayley, A. W. . . . .	1
Bridgewater, <i>Mass.</i> , State Normal School . . . . .	1
Brigham, Edwin H. . . . . 106 periodicals	1
Brimmer, Hon. Martin . . . . .	1
British Museum, <i>London, England</i> . . . . .	5
Britnell, John, <i>Toronto, Canada</i> . . . . .	1
Bronson Library Fund Board, <i>Waterbury, Ct.</i> . . . . .	2
Brookline, <i>Mass.</i> , Public Library . . . . .	1
Brooklyn, <i>N. Y.</i> , Library . . . . .	2
Brooks, Francis A. . . . .	1
Brooks, Frederick . . . . .	3
Brooks, Rev. W. H. . . . .	3
Brown, F. H., <i>M. D.</i> . . . . .	176
Brown, John P. . . . . 1 broadside	1
Brown University, <i>Providence, R. I.</i> . . . .	1
Browne, Miss Alice . . . . . 1 broadside	23
Brownless, A. C., <i>Melbourne, Australia</i> . . . . .	1
Bruce, Henry . . . . .	1
Bryant, J. E., <i>M. A.</i> , <i>Toronto, Canada</i> . . . . .	2
Brymner, Douglas, <i>Ottawa, Canada</i> . . . . .	4
Buenos Aires, Direccion General de Estadistica . . . . .	1
Buffalo, <i>N. Y.</i> , Historical Society . . . . .	2
Buffalo, <i>N. Y.</i> , Library . . . . .	1
Bugbee, James M. . . . .	1
Bunker, Clarence A., <i>Cambridge, Mass.</i> . . . . .	6
Bunker Hill Monument Association . . . . .	7
Burgess, Clinton B. . . . .	2
Burrage, A. C. . . . .	1
Burrage, William C. . . . .	1
Burrage, Rev. B. M., <i>Ashtabula, Ohio.</i> . . . .	1

	Volumes.
Butler Hospital for the Insane, <i>Providence, R.I.</i>	1
Button, T. C., <i>Newcastle-upon-Tyne, England</i>	1
Cady, Mrs. E. D., and Mrs. Gulager, <i>New York City</i>	1
California Academy of Science, <i>San Francisco, Cal.</i>	1
California State Library, <i>Sacramento, Cal.</i>	19
California State Mining Bureau, <i>Sacramento, Cal.</i>	1
Calleja, Camilo, <i>M.D., Valladolid, Spain</i>	2
Cambridge, <i>Mass.</i> , Overseers of the Poor	1
Cambridge, <i>Mass.</i> , Public Library	1
Campbell, H. H., <i>Steelton, Pa.</i>	1
Canada, Department of Agriculture	19
Canada, Geological Department, <i>Ottawa</i>	3
Canfield, Thomas H., <i>Burlington, Vt.</i>	2
Capen, John	1
Carey, Rev. S. C., <i>Gardiner, Me.</i>	1
Carpenter, Rev. C. C., <i>Andover, Mass.</i>	12
Carret, J. F.	8
Cartée, C. S., Estate of	1
Carter, James, <i>London, England</i>	2
Carter, James C., <i>New York City</i>	1
Castilian Club	7
Central Vermont R.R.	2
Chamberlain, Hon. Mellen, <i>Chelsea, Mass.</i>	7
Chandler, F. E.	106
Chandler, T. H., theatre programmes	5
Chapman, Alfred F.	2
Chapman Valve Manufacturing Co.	1 broadside
Charity Organization Society, <i>New York City</i>	1
Chase, George B.	1
Chase, J. Eastman	1
Chauncy Hall School	2
Cheever, David W.	1
Chelsea, <i>Mass.</i> , City Clerk	1
Chicago, <i>Ill.</i> , Board of Trade	1
Chicago, <i>Ill.</i> , Historical Society	1 broadside
Chicago, <i>Ill.</i> , Public Library	16
Cilley, B. P., <i>Manchester, N.H.</i>	1
Cincinnati, O., Chamber of Commerce	1
Cincinnati, O., Observatory	1
Cincinnati, O., Public Library	2
Cjijertsen, Julius, <i>Copenhagen, Denmark</i>	1
Clapp, Henry W., <i>Concord, N.H.</i>	1
Clark, F. W.	1
Clark University, <i>Worcester, Mass.</i>	1
Clarke, Miss Cora H.	1
Clarke, W. B.	1
Clarke, W. B., <i>M.D. Minneapolis, Minn.</i>	2
Clarke Institution for Deaf Mutes, <i>Northampton, Mass.</i>	1
Clarkson, Samuel, <i>Philadelphia, Pa.</i>	2
Clay, C. M., <i>Whitehall, Ky.</i>	2
Cleaves, N. Porter	1
Clerkenwell Public Library, <i>London, Eng.</i>	1
Cleveland, O., Public Library	1
Clinton, Town of, <i>Mass.</i>	1
Cobb, Rev. W. H.	1
Cobden Club, <i>London, Eng.</i>	1
Cohen, Miss., <i>Richmond, Va.</i>	10 broadsides
Colby University Library, <i>Waterville, Me.</i>	4
Cole, T. L., <i>Washington, D.C.</i>	1
Collet, C. D., <i>London, Eng.</i>	broadsides
Columbia College Library, <i>New York City</i>	74
Columbus, O., Committee on Public School Library	1
Commelin, Miss Anna D., <i>Brooklyn, N.Y.</i>	1

## Volumes.

Commission of Colleges in New England, <i>Providence, R.I.</i>	2
Concord, <i>Mass.</i> , Public Library	4
Connecticut Academy of Arts and Sciences, <i>New Haven, Ct.</i>	1
Connecticut Agricultural Experiment Station, <i>New Haven, Ct.</i>	3
Connecticut Board of Fish Commissioners, <i>New Haven, Ct.</i>	1
Cook, Prof. Albert S., <i>New Haven, Ct.</i>	1
Cook, Thomas, & Son, <i>New York City</i>	3
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Cooper Union, <i>New York City</i>	2
Cornell University, <i>Ithaca, N. Y.</i>	1
Cornell University, Agricultural Experiment Stations	22
Council Bluffs, <i>Iowa</i> , Free Public Library	1
Counsel, Edward, <i>Somerville, Australia</i>	2
Courtenay, W. A., <i>Charleston, S.C.</i>	5
Crocker, George G.	2
Croes, J. J. R., <i>New York City</i>	1
Crosby, John L., <i>Bangor, Me.</i>	1
Cupples, Joseph G.	83
Curry, Hon. J. L. M., <i>Washington, D.C.</i>	2
Curtis, Mrs. Charles P.	1
Curtis, William E.	6
Cust, Robert N., <i>M.D., London, England</i>	2
Cutter, Charles A.	14
Cutting, Andrew, Consul of Argentine Republic	2
Da Costa, Charles W., <i>Jacksonville, Fla.</i>	1
Dalton, Samuel, <i>Adj.-Gen. of Mass.</i>	1
Dana, R. H.	3
Dana, S. B., <i>West Roxbury</i>	84
Danforth Public Library, <i>Paterson, N.J.</i>	1
Dargan, Hon. G. W., <i>Charleston, S.C.</i>	1
Dartmouth College, <i>Hanover, N.H.</i>	1
Davenport, Henry	5
Davis, Horace, <i>San Francisco, Cal.</i>	1
Dayton, <i>Ohio</i> , Public Library	2
Dean, John Ward	1
De Costa, Rev. B. F., <i>New York City</i>	2
Dedham, <i>Mass.</i> , Temporary Asylum	1
Delaware Historical Society, <i>Wilmington, Del.</i>	2
Denver, <i>Col.</i> , Public Library	6
De Peyster, J. W., <i>New York City</i>	1
Detroit, <i>Mich.</i> , Public Library	1
Diaz, His Excellency, Porfirio, <i>City of Mexico</i>	3
Doane, L. G., <i>M.D., New York City</i>	1
Domestic Monthly Publishers, <i>New York City</i>	2
Dominguez, Luis L., <i>London, England</i>	1
Doncaster Borough Free Library, <i>England</i>	1
Dorchester, Prof. D.	1
Dorr, Miss Caroline, <i>Roxbury, Mass.</i>	newspapers
Dorr, George Bucknam	26 maps, 14 art journals
Dotterer, Henry S., <i>Philadelphia, Pa.</i>	81
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Downs, James P., <i>New York City</i>	1
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Drummond, J. H., <i>Portland, Me.</i>	1
Dryden, Hon. John, <i>Ontario</i>	24
Dublin, <i>Ireland</i> , Municipality of	1
Du Dezert, G. D., <i>Paris, France</i>	1
Dudley, Dean, <i>Wakefield, Mass.</i>	1
Dutton, Albert	4
Dyer, Elisha, <i>Providence, R.I.</i>	1
Eastern State Penitentiary, <i>Philadelphia, Pa.</i>	1
Eastman, Mrs. Sophia	1
Eaton Family Association, <i>New Haven, Ct.</i>	1



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Eddy, Mrs. M. B. G.	9
Elisha Mitchell Scientific Society, <i>Chapel Hill, N.C.</i>	1
Elizabeth, <i>N.J.</i> , Public Library	1
Elliott, Hon. Charles E., <i>Minneapolis, Minn.</i>	1
Enebuske, Claes J.	2
Engineers' Club of Philadelphia, <i>Pa.</i>	2
English High School Association	1
Enoch Pratt Free Library, <i>Baltimore, Md.</i>	2
Ensign, Charles S.	2
Entomological Society, <i>Washington, D.C.</i>	1
Esoteric Publishing Company	2
Essex Institute, <i>Salem, Mass.</i>	6
Evans, F. M., <i>Antigua, Leeward Islands</i>	2
Evans, M., <i>London, England</i>	1
Evarts, Rev. W. W. <i>Haverhill, Mass.</i>	1
Everett, W., <i>Quincy, Mass.</i>	12
Excelsior Publishing Company, <i>New York City</i>	1
Fairmount Park Art Association, <i>Philadelphia, Pa.</i>	4
Fall River, <i>Mass.</i> , Public Library	3
Fawcett, Wm., <i>F.L.S., Jamaica, W.I.</i>	3
Faxon, Charles E.	1
Fewkes, J. W.	8
Fifield, Hon. G. W., <i>Lowell, Mass.</i>	1
Fiske, G. S.	1
Fitchburg, <i>Mass.</i> , City of	1
Fitchburg R.R. Company	1
Fitz Public Library, <i>Chelsea, Mass.</i>	2
Fletcher Free Library, <i>Burlington, Vt.</i>	1
Floye, W. J.	4
Flügel, Felix, <i>Leipzig, Germany</i>	10
Folsom, A. A.	2
Foote, A. R., <i>Washington, D.C.</i>	2
Ford, Paul L., <i>Brooklyn, N.Y.</i>	1
Ford, W. E.	1
Förstermann, E., <i>Dresden, Ger.</i>	1
Foster, Joseph, <i>U.S.N., Portsmouth, N.H.</i>	8
France, Ministère de l'Instruction publique, <i>Paris</i>	100
France, Ministère des affaires étrangères	1
Francisco, M. J., <i>Rutland, Vt.</i>	1
Frankle, Gen. Jones, <i>Haverhill, Mass.</i>	1
Frazer, Persifor, <i>Philadelphia, Pa.</i>	1
Freeman, John R.	2
Friends' Book Association, <i>Philadelphia, Pa.</i>	1
Friends' Book Store, <i>Philadelphia, Pa.</i>	1
Frothingham, A. L., <i>Baltimore, Md.</i>	1
Furber, Rev. D. S., <i>Newton Centre, Mass.</i>	1
Gaffarel, P., <i>Dijon, France</i>	1
Gallagher, Rev. William, <i>Easthampton, Mass.</i>	3
Galvin, George W., <i>M.D.</i>	1
Ganong, W. T., <i>St. John, N.B.</i>	1
Garland, James S., <i>Concord, Mass.</i>	1
Garrison, F. J., <i>West Roxbury</i>	18
Garrison, L. McKim, <i>Cambridge, Mass.</i>	periodicals 185
Garrison, W. P., <i>New York City</i>	2
Gay, Julius, <i>Farmington, Ct.</i>	1
General Association of Connecticut, <i>New London</i>	1
General Association of New Hampshire, Congregational and Presbyterian churches, <i>Hollis, N.H.</i>	1
General Theological Seminary	1
Geological and Natural History Survey of Minn., <i>Minneapolis, Minn.</i>	2
Geological Society of London, <i>England</i>	1
Geological Society of Georgia, <i>Atlanta, Ga.</i>	1

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Georgetown University, <i>Washington, D.C.</i>	1
German Society of the City of New York	1
Gifford, William L. R., <i>New Bedford, Mass.</i>	1
Gill, Augustus H., <i>M.D.</i>	1
Gilman, Nicholas Paine	1
Glasgow Philosophical Society, <i>Scotland</i>	1
Gloucester, <i>Mass.</i> , City of	2
Gloversville, <i>N.Y.</i> , Public Library	1
Goddard, Miss Matilda	55
Godfrey, Frank, <i>Honolulu, H.I.</i>	1
Gordon, E.	1
Gordon, George A., <i>Somerville, Mass.</i>	1
Gould, Miss Ida W.	30
Gould, S. C. and L. M., <i>Manchester, N.H.</i>	11
Graham, Douglas, <i>M.D.</i>	2
Grand Commandery of Maine, <i>Portland</i>	1
Grand Rapids, <i>Mich.</i> , Public Library	1
Grant, George B.	1
Gray, Miss Harriet, <i>Wellesley Hills, Mass.</i>	28
Gray, L. F.	2
Great Britain Patent Office	49
Great Falls Leader Publishing Company, <i>Montana</i>	1
Green, Millbrey, <i>M.D.</i>	1
Green, S. A., <i>M.D.</i> 1 circular, 2 broadsides, 1 newspaper	43
Green, S. S., <i>Worcester, Mass.</i>	4
Greenough, W. W.	1
Gregory, H. E.	1
Griffing Iron Company, <i>Jersey City, N.J.</i>	2
Griffis, Rev. W. E.	1
Griffith, Axtel, & Cady Co., <i>Holyoke, Mass.</i>	1
Griffiths, L. M.	1
Grolier Club, <i>New York City</i>	2
Guelph Agricultural College, <i>Canada</i>	8
Guild, Chester newspapers and magazines	256
Guildhall Library, <i>London, England</i>	3
Gustin, Henry Arthur, <i>Cambridge, Mass.</i>	1
Haliburton, R. G., <i>London, England</i>	1
Halifax, <i>England</i> , Public Library	1
Hall, Edward W., <i>Waterville, Me.</i>	2
Hall, Joseph, <i>Hartford, Conn.</i>	1
Hall's Phonographic College	1
Hamburg, <i>Germany</i> , Stadtbibliothek	1
Hamilton, <i>Ontario</i> , Public Library	1
Handelskammer, <i>Leipzig, Germany</i>	1
Harrison, W. B., <i>New York City</i>	1
Harrison, Frank, <i>Newark, N.J.</i>	2
Hart, Hon. Thomas N.	2
Hartford, <i>Ct.</i> , Library Association	2
Hartford Theological Seminary, <i>Hartford, Ct.</i>	4
Hartwell, E. M.	1
Harvard Club of New York City	2
Harvard College, <i>Cambridge, Mass.</i>	1
Harvard College Astronomical Observatory	6
Harvard College Museum of Comparative Zoölogy	2
Harvard Medical School	1
Harvey, A. C.	1
Haskell, Rev. Augustus M.	1
Hastings, J. K.	3
Hastings, H. L.	32
Hatcher, E. N., <i>Columbus, O.</i> 1 broadside	
Hayden, John, <i>Dublin, Ireland</i>	1
Hazen, Gen. A. D., <i>Washington, D.C.</i> postage stamps, maps	
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Heden, H. B.	1
Hemenway, Mrs. Mary	2
Hervey, E. W., <i>New Bedford, Mass.</i>	1
Heydrick, C., <i>Franklin, Pa.</i>	1
Hiersemann, Karl W., <i>Leipzig, Germany</i>	8
Higginson, George	1
Hill, Alfred J., <i>St. Paul, Minn.</i>	1
Hill, Hon. H. A.	2
Hill, Col. H. E., <i>Somerville, Mass.</i>	2
Hill, N. P., <i>Colorado Springs, Col.</i>	1
Historical and Philosophical Society of Ohio, <i>Cincinnati, O.</i>	1
Hoar, Hon. George F., <i>Worcester, Mass.</i>	6
Hobart College, <i>Geneva, N. Y.</i>	2
Hoboken, <i>N. J.</i> , Free Public Library	1
Hodges, R. M., <i>M. D.</i>	2
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Holmes, Oliver Wendell, <i>M. D.</i>	periodicals 183
Home for Aged Couples	1
Home for Inebriates Association, <i>London, England</i>	1
Homestead Coöperative Bank	1 broadside
Hopedale, <i>Mass.</i> , Public Library	1
Horsford, Prof. E. N., <i>Cambridge, Mass.</i>	5
Hovey, W. A.	23
Howard Association, <i>London, England</i>	1
Howard, George E., <i>Lincoln, Neb.</i>	2
Howell, George R., <i>Albany, N. Y.</i>	2
Hubbard, James M.	8
Hudson, W. M., <i>Hartford, Ct.</i>	1
Huguenot Society of America, <i>New York City</i>	1
Humane Society of the Commonwealth of Mass.	1
Hunt, E. B.	newspapers 6
Ierson, Rev. Henry, <i>London, England</i>	1
Illinois Bureau of Labor Statistics, <i>Springfield, Ill.</i>	1
Illinois State Laboratory of Natural History, <i>Champaign, Ill.</i>	3
Indiana Bureau of Statistics, <i>Indianapolis, Ind.</i>	1
Indianapolis, <i>Ind.</i> , Public Library	1
Industrial Aid Society	2
Ingraham, R. C., <i>New Bedford, Mass.</i>	2
Institute of Jamaica, <i>Kingston, Jam.</i>	1
Institution of Civil Engineers, <i>London, England</i>	6
Iowa Agricultural College, Experiment Station, <i>Ames, Iowa</i>	4
Irish Loyal and Patriotic Union, <i>Dublin, Ireland</i>	1
Italy. Ministero dell' Interno, <i>Rome, Italy</i>	21
Ives, Brayton, <i>New York City</i>	3
Jackson, Wm., City Engineer	1
James, B. W., <i>M. D.</i> , <i>Philadelphia, Pa.</i>	1
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Johnson, Edward F.	1
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Joint Counties Lunatic Asylum, <i>Carmarthen, Wales</i>	1
Jones, Col. Charles C., <i>Augusta, Ga.</i>	2
Jones, Gardner M., <i>Salem, Mass.</i>	9 photographs
Jones, Hon. John P., <i>Washington, D. C.</i>	1
Judson, A. B., <i>New York City</i>	1
K. K. Geologische Reichsanstalt, <i>Vienna, Austria</i>	4
Kansas Board of R. R. Commissioners, <i>Topeka</i>	1
Kansas City Academy of Science	1

Volumes.

Kansas State Agricultural College, Experiment Station, <i>Manhattan, Kan.</i>	8
Kansas State Board of Agriculture, <i>Topeka, Kan.</i>	6
Kansas State Historical Society, <i>Topeka, Kan.</i>	3
Kate Field's Washington	1
Keller, Miss M. C., <i>New York City</i>	1
Kentucky Geological Survey, <i>Frankfort, Ky.</i>	2
Kentucky State College Experiment Station, <i>Lexington, Ky.</i>	2
King, Rufus, <i>Yonkers, N. Y.</i>	1
Kingsley, W. L., <i>New Haven, Ct.</i>	1
Kirkpatrick, George E., <i>Philadelphia, Pa.</i>	1
Knapp, A. M.	16
Knowles, Edward R.	1
Knowles, L. F.	8
Knox, John Jay	1
Kongelige Biblioteket, <i>Stockholm</i>	1
Krankskopf, J., <i>Philadelphia, Pa.</i>	2
Lanphear, Rev. O. T., <i>Beverly, Mass.</i>	1
Lawrence, City of	1
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Lewis, T. H., <i>St. Paul, Minn.</i>	2
Lexington, Town of	1
Library Company of Philadelphia, Pa.	2
Lilienthal, Mrs. A. L., <i>Roxbury, Mass.</i>	3
Lille, France. Bibliothèque de l'Université	6
Lincoln, F. W.	portrait
Linderfelt, K. August, <i>Milwaukee, Wis.</i>	1
Lintner, J. A., <i>Albany, N. Y.</i>	7
Little, G. T., <i>Brunswick, Me.</i>	1
Littlejohn, Rt. Rev. Abram N., <i>Garden City, N. Y.</i>	1
Liverpool, England, Free Public Library	1
Locke, M. F., <i>Little Rock, Ark.</i>	1
London, England, Corporation of the City of	2
Los Angeles, Cal., Public Library	6
Lothrop, C. L.	2
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Lovett, Robert W., M.D.	1
Ludwig Salvator, Archduke of Austria and Tuscany	1
Lyman, G. H., M.D.	1
Lyman, Mrs. Theodore, <i>Brookline, Mass.</i>	25 periodicals
Lynn, Mass., School Committee	1
MacCalla, Clifford P., M.A.	1
Macdonald, Arthur, M.D., <i>Worcester, Mass.</i>	1
Macmillan & Bowes, <i>Cambridge, England</i>	1
Macurdy, Miss T. E.	1
Maimonides Library, <i>New York City</i>	8
Maine Central Railroad, <i>Portland, Me.</i>	1
Maine Free Masons, Grand Chapter, <i>Portland, Me.</i>	1
Maine Historical Society, <i>Portland, Me.</i>	2
Maine Missionary Society, <i>Bangor, Me.</i>	1
Maine State College, Agricultural Experiment Station, <i>Orono, Me.</i>	14
Malden, City of, <i>Mass.</i>	1
Malden, Mass., Public Library	1
Malone, Miss Emily, <i>Dublin, Ireland</i>	4
Manchester, England, Free Public Library	2
Manchester, England, Geological Society	1

	Volumes.
Marcy, Henry O., <i>M.D.</i>	1
Marvin, John T.	1
Marsh, Henry A., <i>Worcester, Mass.</i>	4 circulars
Martin, Joseph G.	1
Maryland Agricultural College, Experiment Station, Prince George's County	18
Mason, L. D., <i>Brooklyn, N. Y.</i>	5
Mason, W. L., <i>Milwaukee, Wis.</i>	2
Massachusetts, Board of Railroad Commissioners	1
—— Bureau of Statistics	24
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—— State Auditor	6
—— State Board of Agriculture	4
—— State Board of Health	7
—— State Board of Lunacy and Charity	1
—— State Fireman's Association	1
—— State Library	1
—— State Normal School, <i>Worcester</i>	1
—— State Pharmaceutical Association	1
Massachusetts Agricultural College, <i>Amherst, Mass.</i>	5
Massachusetts Baptist Missionary Society	1
Massachusetts Charitable Mechanics' Association	3
Massachusetts General Hospital	1
Massachusetts Horticultural Society	3
Massachusetts Infant Asylum	1
Massachusetts Institute of Technology	4
Massachusetts Medical Society	1
Massachusetts School for the Feeble-minded	1
Massachusetts Society for the Prevention of Cruelty to Children	1
Master Car-builders' Association, <i>Chicago, Ill.</i>	1
Matthews, Brander, <i>New York City</i>	93
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Matthews, William, <i>Brooklyn, N. Y.</i>	1
Maxwell, Wm. H., <i>Brooklyn, N. Y.</i>	1
May, H. A.	20
May, Samuel, <i>Leicester, Mass.</i>	1
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McConnell, H. H., <i>Allston, Mass.</i>	1
McGill College and University, <i>Montreal, Canada</i>	2
McKenzie, Rev. A., <i>Cambridge, Mass.</i>	1
Medina, J. T., <i>Santiago de Chile</i>	3
Mekeel, C. H., Stamp & Publishing Co., <i>St. Louis, Mo.</i>	1
Memorial Hall Library, <i>Andover, Mass.</i>	1
Mercantile Library Company of Philadelphia	1
Mercantile Library, <i>New York City</i>	1 photograph
Mercier, Hon. Honoré H., <i>Quebec, Canada</i>	2
Meriden Scientific Association, <i>Meriden, Conn.</i>	1
Mexican Central Railway Company	1
Mexico, Direccion General de Estadistica de la Republica Mexicana	1
Michigan, Bureau of Labor and Industrial Statistics, <i>Lansing, Mich.</i>	1
—— Commissioner of Railroads, <i>Lansing</i>	2
—— Military Academy, <i>Orchard Lake, Mich.</i>	1
—— State Library, <i>Lansing, Mich.</i>	14
Mifflin, J., <i>Philadelphia, Pa.</i>	1
Military Order of the Loyal Legion of the United States, <i>Cincinnati, Ohio</i>	5
Miller, C. G., <i>Chicago, Ill.</i>	1
Mills, Charles K., <i>M.D., Philadelphia, Pa.</i>	1
Milwaukee, <i>Wis.</i> , Chamber of Commerce	1
Milwaukee, <i>Wis.</i> , Public Library	5
Minneapolis, <i>Minn.</i> , Public Library	5
Minnesota, Bureau of Labor Statistics, <i>Minneapolis</i>	1
Minnesota Historical Society, <i>St. Paul</i>	1

	Volumes.
Minnisink Valley Historical Society, <i>Port Jervis, N. Y.</i>	1
Missionary Conference, <i>London, England</i>	2
Missouri Bureau of Labor Statistics, <i>Jefferson City, Mo.</i>	2
Mix, C. L., <i>Cambridge, Mass.</i>	1
Momerie, <i>Rev. A., London, England</i>	1
Monks, G. H., <i>M.D.</i>	1
Monroe, <i>Prof. James, Oberlin, Ohio</i>	1
Montt, Pedro, <i>Washington, D.C.</i>	14
Moody, E. S.	2
Moore, George H., <i>LL.D., New York City</i>	1
Moore, <i>Mrs. T. Emily, Brighton, Mass.</i>	1
Morse, Edward S., <i>Salem, Mass.</i>	1
Morse, <i>Hon. Leopold, Washington, D.C.</i>	2
Morse Institute, <i>Natick, Mass.</i>	1
Morton, Edwin, <i>Morges, Switzerland</i>	1
Morton, J. W.	1 broadside
Morton, W. J., <i>M.D., New York City</i>	1
Mount Vernon, <i>Mo., Academy</i>	1
Mullet, A. E., <i>Charlestown, Mass.</i>	28
Munn & Co., <i>New York City</i>	2
Museum of American Archæology, <i>Philadelphia</i>	1
Museum of Comparative Zoölogy	1
Museum of Fine Arts	4
Muybridge, <i>Eadweard, Philadelphia, Pa.</i>	1
National Academy of Sciences, <i>Washington, D.C.</i>	7
National Association of Wool Manufacturers	8
National Civil Service Reform League, <i>New York City</i>	1
National Eclectic Medical Association, <i>Chicago, Ill.</i>	1
National Executive Silver Committee, <i>Washington, D.C.</i>	1
National Woman's Christian Temperance Union, <i>Evanston, Ill.</i>	2
Nationalist Club	6
Nebraska State Historical Society, <i>Lincoln, Neb.</i>	1
Neill, Edward D., <i>D.D., St. Paul, Minn.</i>	2
New Bedford, <i>Mass., Board of Trade</i>	1
New Bedford, <i>Mass., Free Public Library</i>	2
New England Cotton Manufacturers' Association	3
New England Historic Genealogical Society	2
New England Methodist Historical Society	1
New England Society of Pennsylvania, <i>Philadelphia</i>	1
New Hampshire Grand Lodge, Knights of Honor, <i>Dover, N.H.</i>	1
New Haven Colonial Historical Society, <i>New Haven, Conn.</i>	1
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New York, State of. Bureau of Statistics of Labor, <i>Albany, N. Y.</i>	2
— State Bar Association	1
— State Forest Commissioners, <i>Albany, N. Y.</i>	1
— State Library, <i>Albany, N. Y.</i>	12
— State Medical Society, <i>Albany, N. Y.</i>	1
— State Reservation at Niagara, <i>Albany, N. Y.</i>	1
New York Academy of Sciences, <i>New York City</i>	8
New York Chamber of Commerce, <i>New York City</i>	1
New York Charity Organization Society, <i>New York City</i>	1
New York City Board of Education	4
New York Civil Service Commission, <i>Albany</i>	1
New York Free Circulating Library, <i>New York City</i>	1
New York Historical Society, <i>New York City</i>	3
New York Ophthalmic Institute, <i>New York City</i>	1
New York Society Library, <i>New York City</i>	2
Newark, <i>N.J., Free Public Library</i>	1

	Volumes-
Newberry, Prof. J. S., <i>New York City</i>	1
Newberry Library, <i>Chicago, Ill.</i>	1
Newburyport, <i>Mass.</i> , Public Library	1
Newell, W. W., <i>Cambridge, Mass.</i>	1
Newhall, H. F., <i>Philadelphia, Pa.</i>	1
Newton, <i>Mass.</i> , City Clerk	2
Newton, <i>Mass.</i> , Free Library	1
Newton, Wm. T., <i>Brookline, Mass.</i>	2
Nichols, B. W., <i>Jamaica Plain</i>	newspapers and periodicals 183
Nichols, Mrs. R. Anne	94
Nickerson, Sereno D.	8
Nickolson, J. B., <i>Philadelphia, Pa.</i>	1
Norcross, Mrs. Otis	3 maps 282
North Carolina Agricultural Experiment Station, <i>Raleigh, N.C.</i>	1
Northwestern University, <i>Evanston, Ill.</i>	1
Norwegian North Atlantic Expedition Committee	1
Nova Scotia Historical Society, <i>Halifax, N.S.</i>	1
Noyes, E. P., <i>Rowley, Mass.</i>	314
Numismatic and Antiquarian Society of Philadelphia	2
Ober, F. W., <i>New York City</i>	7
Oberlin College, <i>Oberlin, Ohio</i>	1
O'Farrell, Charles	4
Ohio Agricultural Experiment Station, <i>Columbus, O.</i>	21
Ohio State Bar Association, <i>Columbus, O.</i>	8
O'Kane, Joseph	1
Old Residents' Historical Association, <i>Lowell, Mass.</i>	1
Omaha, <i>Neb.</i> , Public Library	1
Ongania, Ferdinando, <i>Venice, Italy</i>	16
Ontario Agricultural College, <i>Toronto, Ont.</i>	5
Otterbein University, <i>Westerville, O.</i>	6
Pacific Mills, <i>Lawrence, Mass.</i>	1
Page, James A.	periodicals
Parker, Miss Julia	11
Parks, Leighton	1
Parnell, John, <i>London, England</i>	3 broadsides 2
Parsons, George F., <i>San Francisco, Cal.</i>	1
Partridge, G. F.	1
Paton, Allan Park, <i>Greenock, Scotland</i>	2
Peabody Institute, <i>Baltimore, Md.</i>	1
Peabody Institute, <i>Peabody, Mass.</i>	1
Peabody Museum of Archæology and Ethnology, <i>Cambridge, Mass.</i>	3
Pennsylvania Academy of the Fine Arts, <i>Philadelphia</i>	4
Pennsylvania Geological Survey, Board of Commissioners, <i>Philadelphia</i>	2
Pennsylvania Medical Society, <i>Philadelphia</i>	1
Pennsylvania Museum and School of Industrial Art, <i>Philadelphia</i>	2
Pennsylvania Society of the Sons of the Revolution, <i>Philadelphia</i>	7
Pennsylvania State Library, <i>Philadelphia</i>	39
Peralta, José F. de, <i>M.D., San José, Costa Rica</i>	1
Perkins, A. T.	4
Perkins, W. D., <i>Sacramento, Cal.</i>	1
Perkins Institution and Mass. School for the Blind	1
Perry, Amos, <i>Providence, R.I.</i>	1
Perry, Rev. A. L., <i>Williamstown, Mass.</i>	2
Perry, T. S.	32
Perry, Right Rev. William S., <i>Davenport, Ia.</i>	29
Phelps, Miss Fannie L.	6
Philadelphia, Commissioners for the Erection of Public Buildings	4
Philadelphia City Institute	1
Philadelphia College of Pharmacy, Alumni Association	2
Phillips, Miss	94
Phillips Academy, <i>Andover, Mass.</i>	2
Phonographic Institute, <i>Cincinnati, O.</i>	5

	Volumes.
Porter, Rev. E. G., <i>Lexington, Mass.</i> . . . . .	1
Portland, <i>Me.</i> , Public Library . . . . .	2
Portsmouth, <i>England</i> , Borough of, Free Public Library . . . . .	4
Post, A. A. . . . .	1
Pratt Institute, <i>Brooklyn, N. Y.</i> . . . . 1 circular	2
Prescott, W. P. . . . .	20
Prince, Leeson C., <i>F.R.A.S., Crouborough, Sussex, England</i> . . . . .	1
Providence, <i>R.I.</i> , Bureau of Labor Statistics . . . . .	1
Providence, <i>R.I.</i> , City Clerk . . . . .	2
Providence, <i>R.I.</i> , Executive Department . . . . .	3
Providence, <i>R.I.</i> , Public Library . . . . .	2
Pullman Palace Car Co., <i>Chicago, Ill.</i> . . . . .	1
Putnam, Miss Alice . . . . .	1
Quebec Literary and Historical Society . . . . .	1
Queen's College University, <i>Kingston, Canada</i> . . . . .	1
Reale Istituto Lombardo, <i>Milan, Italy</i> . . . . .	2
Redwood Library and Athenæum, <i>Newport, R.I.</i> . . . .	1
Reed, W. A., <i>Brockton, Mass.</i> . . . . .	1
Reeve, J. C., <i>Dayton, O.</i> . . . . .	2
Regan, William M., <i>Minneapolis, Minn.</i> . . . .	2
Register Publishing Co., <i>Chicago, Ill.</i> . . . . .	1
Reynolds Library, <i>Rochester, N. Y.</i> . . . . .	1
Rhode Island Historical Society, <i>Providence, R.I.</i> . . . .	2
Rhode Island Society for the Encouragement of Domestic Industry, <i>Providence, R.I.</i> . . . .	1
Richards, Wm. R. . . . .	1
Richardson, W. A. <i>Washington, D.C.</i> . . . .	1
Richmond, <i>England</i> , Borough of, Free Public Library . . . . .	4
Ridlon, John, <i>M.D., New York City</i> . . . . .	1
Rigdon, Jonathan . . . . .	2
Rijks-Universiteit te Utrecht, <i>Holland</i> . . . . .	31
Robert, Charles, <i>Paris, France</i> . . . . .	1
Robinson, F. C., <i>Brunswick, Me.</i> . . . . .	2
Robinson, H. C., <i>Hartford, Conn.</i> . . . . .	1
Robinson, W. J. . . . .	1
Rochester, <i>N. Y.</i> , Public Schools Supt. . . . .	1
Rodman, Alfred . . . . .	1
Roffe, W. . . . .	1
Rogers, E. H., <i>Chelsea, Mass.</i> . . . . .	1
Root, Rev. J. P., <i>Providence, R.I.</i> . . . . .	1
Rosenstein, M., <i>M.D.</i> . . . . .	276
Rothschildsen, Freiherr C. von., <i>Frankfurt a. M., Germany</i> . . . . .	1
Rowell, B. W. . . . .	1
Rowell, G. P., & Co., <i>New York City</i> . . . . .	1
Roxbury Latin School . . . . .	2
Royal Observatory, <i>Edinburgh, Scotland</i> . . . . .	1
Royal Observatory, <i>Greenwich, London, England</i> . . . . .	1
Royal Society of Canada, <i>Montreal, Canada</i> . . . . .	2
Royal Society of Edinburgh, <i>Scotland</i> . . . . .	3
Royal Society of South Australia . . . . .	1
Russo-Jewish Committee, <i>London, England</i> . . . . .	1
Rust, N. J. . . . .	1
Sacconi, Giulia, <i>Florence, Italy</i> . . . . .	1
St. Johns, <i>N.F.</i> , Colonial Secretary's Office . . . . .	1
St. Joseph, <i>Mo.</i> , Free Public Library . . . . .	1
St. Louis, <i>Mo.</i> , Mercantile Library Assn. . . . .	1
St. Louis, <i>Mo.</i> , Public Library . . . . .	1
St. Paul, <i>Minn.</i> , Public Library . . . . .	1
Salem, <i>Mass.</i> , Public Library . . . . .	5
Salisbury, Prof. E. E., <i>New Haven, Ct.</i> . . . . .	1
San Francisco, <i>Cal.</i> , Free Public Library . . . . .	1
Sanger, C. R., <i>Concord, Mass.</i> . . . . .	1
Savage, E. H. . . . .	1



	Volumes.
Sawyer, George E.	2
Schaeffer, E. M., <i>M.D., Baltimore, Md.</i>	1
Scholfield, Joseph, Estate of	90
Schönhof, Carl	2
Scott, F. N., <i>Ph.D., Ann Arbor, Mich.</i>	1
Scripture, E. W., <i>Worcester, Mass.</i>	4
Scudder, S. H., <i>Cambridge, Mass.</i>	4
Sears, Henry C., <i>Roxbury, Mass.</i>	1
Seattle, Washington, Board of Trade	1
Seaver, Nathaniel, <i>East Boston</i>	4
Service Geograph. de l'Armée, <i>Paris, France</i>	1
Sewall, S. E., Estate of	73
Shaftsbury College of Elocution, <i>Washington, D.C.</i>	1
Shattuck, H. A., & Co.	1
Shaw, Edwin F.	2
Shaw, Samuel S.	periodicals and newspapers 204
Shea, John G., <i>Elizabeth, N.J.</i>	1
Shinn, James T., <i>Philadelphia, Pa.</i>	1
Simms, Joseph, <i>M.D., San Francisco, Cal.</i>	3
Sinclair, A. H., <i>B.A., Toronto, Ont.</i>	1
Skinner, Charles M., <i>Brooklyn, N.Y.</i>	1
Skinner, F.	2 photographs
Slafter, Rev. Edmund F.	1
Small, Mrs. A. D., <i>Allston, Mass.</i>	4 programmes
Small, J. M., <i>M.D., New York City</i>	4
Smith, Charles C.	1
Smith, Eugene A., <i>Tuscaloosa, Ala.</i>	maps 2
Smithsonian Institution, <i>Washington, D.C.</i>	16
Société belge d'Electriciens, <i>Bruxelles</i>	1
Society for Psychical Research	1
Society for the History of the Germans in Maryland, <i>Baltimore, Md.</i>	1
Society for the Reformation of Juvenile Delinquents, <i>New York City</i>	1
Society for the Study of Inebriety, <i>London, England</i>	1
Society of American Florists	1
Society of Arts, <i>London, England</i>	1
Society of St. Vincent de Paul	1
Somers, Alexander, <i>Manchester, England</i>	1
Somerset Club	newspapers
Somerville, <i>Mass.</i> , Public Library	15
South Publishing Company, <i>New York City</i>	3
Southbridge, Town of	1
Southampton, <i>Eng.</i> , Public Library	1
Spader, P. Vanderbilt, Estate of, <i>New Brunswick, N.J.</i>	1
Spain, Cuerpo de Artilleria, <i>Madrid, Spain</i>	1
Specht, Joseph, <i>St. Louis, Mo.</i>	2
Spokesman Publishing Co., <i>Spokane, Wash.</i>	newspapers
Springfield City Library Assn., <i>Mass.</i>	3
Standard Publishing Company	1
Staples, Carlton A., <i>Lexington, Mass.</i>	1
Start, Rev. W. A., <i>Cambridge, Mass.</i>	1
Stephenson, Andrew, <i>Middletown, Ct.</i>	1
Stepniak, Sergius	1
Stevens, Hermon Weed, <i>Dover, N.H.</i>	1
Stewart, Hon. Wm. M., <i>Washington, D.C.</i>	1
Stockwell, Thomas B., <i>Providence, R.I.</i>	1
Stogdon, J. C., <i>London, England</i>	3
Stokes, Thomas I.	1
Storer, H. R., <i>M.D., Newport, R.I.</i>	1
Storrs School Agricultural Experiment Station, <i>Storrs, Ct.</i>	8
Stoughton, Town of	1
Street Railway Review Publishing Co., <i>Chicago, Ill.</i>	1
Strong, Edward A.	1

	Volumes.
Strout, James C., <i>Washington, D.C.</i>	3
Sunderland, Rev. J. T.	1
Swan, Robert T.	1
Swansea, <i>Eng.</i> , Public Library	1
Swarthmore College, <i>Swarthmore, Pa.</i>	1
Swedenborg Publishing Assn., <i>Germantown, Pa.</i>	2
Swett, C. E.	1
Swift, Lindsay	3 circulars
Swift, M. I., <i>Ashtabula, O.</i>	7
Swift, McRee, <i>New Brunswick, N.J.</i>	2 broadsides
Sydney, <i>N.S.W.</i> , Department of Public Instruction	4
Sydney, <i>N.S.W.</i> , Free Public Library	1
Sydney, <i>N.S.W.</i> , State Children's Relief Department	1
Taft, Charles H., <i>A.B., Cambridge, Mass.</i>	1
Taunton, <i>Mass.</i> , Public Library	2
Taylor, Edward W.	1
Taylor, Prof. J. R.	1
Technology Architectural Review	1
Terry, C. E., <i>Worcester, Mass.</i>	1
Terry, Rev. Roderick, <i>New York City</i>	1
Texas Agricultural Experiment Station, <i>College Station, Texas</i>	17
Thacker, Spink, & Co., <i>Calcutta, India</i>	11
Thayer, Caroline C., Estate of	portfolios and photographs 2,406
Thomas Crane Public Library, <i>Quincy, Mass.</i>	2
Thompson, Rev. A. C.	2
Thorpe, Francis Newton, <i>Philadelphia, Pa.</i>	1
Thorpe, W. G.	1 broadside
Thwing, Prof. Edward P., <i>Brooklyn, N.Y.</i>	1
Tillinghast, C. B.	1
Tilton, Mrs. William B.	1
Tokyo, <i>Japan</i> , Library	7
Toledo, <i>O.</i> , Public Library	3
Tolman, Albert H., <i>Ripon, Wis.</i>	1
Topeka, <i>Kansas</i> , Public Library	1
Toronto, <i>Ontario</i> , Public Library	1
Townsend, Thomas S., <i>New York City</i>	2
Traddles Company, <i>Cincinnati, O.</i>	1
Tribune Publishing Co., <i>Meadville, Pa.</i>	1
Trinity College, <i>Hartford, Ct.</i>	1
Trinity College, <i>North Carolina</i>	3
Troup, F. B., <i>Ezeter, England</i>	1
Tucker, Benjamin R.	1
Tucker, W. G., <i>Albany, N.Y.</i>	1
Tuckerman, Frederick	1
Tufts College, <i>Medford, Mass.</i>	8
Tuttle, Rev. Joseph F., <i>Crawfordsville, Ind.</i>	4
Tuttle, J. H., <i>Dedham, Mass.</i>	2
Tyler, W. G., <i>Salem, N.J.</i>	1
United States. Attorney General	2
— Board of Indian Commissioners	1
— Board on Geographical Names	1
— Commissioner of Fish and Fisheries	3
— Court of Claims	1
— Department of Agriculture	30
— Bureau of Animal Industry	1
— Division of Chemistry	11
— Division of Entomology	5
— Division of Ornithology	2
— Division of Statistics	8
— Division of Vegetable Pathology	8
— Division of Forestry	1
— Office of Experiment Stations	10
— Weather Bureau	120 maps, 60 atlas sheets

	Volumes.
United States. Department of the Interior	78
— Bureau of Education	8
— Bureau of Labor	7
— Census Office	34
— Geological Survey	48 atlas sheets 13
— Patent Office	30
— Superintendent of Documents	1
— Department of State	12
— Bureau of the American Republics	5
— Consular Department	12
— Military Academy, <i>West Point, N. Y.</i>	2
— National Museum	1
— Navy Department	
— Bureau of Navigation	3
— Hydrographic Office	2 charts 3
— Hydrographic Office branch, <i>Boston</i>	6 charts
— Nautical Almanac Office	3
— Naval Academy, <i>Annapolis, Md.</i>	1
— Naval Observatory	3
— Post Office Department	2
— Dead Letter Office	1
— Treasury Department	1 broadside 2
— Bureau of Statistics	11
— Bureau of the Mint	3
— Coast and Geodetic Survey	8
— Commissioner of Internal Revenue	3
— Life-Saving Service	1
— Light-House Inspector	2
— Marine Hospital Service	2
— Supervising Inspector-General of Steamboats	11
— War Department	32
— Adjutant-General's Office	1
— Chief of Engineers	4
— Ordnance Office	1
— Signal Office	366 maps 9
— Surgeon General's Office	2
Universalist Publishing House	1
University College, <i>Toronto, Ont.</i>	4 circulars 1
University of California, <i>Berkeley, Cal.</i>	19
University of Chicago, <i>Chicago, Ill.</i>	2
University of Michigan, <i>Ann Arbor</i>	1
University of Pennsylvania, <i>Philadelphia</i>	2
University of Rochester, Library, <i>Rochester, N. Y.</i>	1
University of Toronto, <i>Ontario</i>	1
University of Vermont, <i>Burlington, Vt.</i>	1
University of Wisconsin, <i>Madison, Wis.</i>	4
University of Wisconsin Agricultural Experiment Station	4
Updike, Daniel Berkeley	32
Upsala, Kongl. Universitetet	2
Upson, Irving S., <i>New Brunswick, N.J.</i>	1
Urban, Theodore L., <i>Columbia, Pa.</i>	1
Utah Agricultural College Experiment Station, <i>Logan</i>	10
Van Sieten, George W., <i>New York City</i>	1
Vassar, John G., Estate of, <i>Poughkeepsie, N. Y.</i>	2
Venzey, W. G., <i>Washington, D. C.</i>	2
Veiga, Augusto M. A., <i>Paris, France</i>	1
Vermont Association of Boston	1
Vermont State Library, <i>Montpelier, Vt.</i>	19
Viaux, Frederic H.	1
Victoria, <i>Australia</i> , Public Library	7
Victoria Street Society for the Protection of Animals from Vivisection, <i>London, England</i>	13
Vinton, Rev. Alexander H., <i>Worcester, Mass.</i>	1

	Volumes.
Virginia State Library, <i>Richmond, Va.</i>	8
Wagner Free Institute of Science, <i>Philadelphia, Pa.</i>	1
Waites, Alfred, <i>Worcester, Mass.</i>	1
Wales, Thomas B.	1
Wall, Caleb A., <i>Worcester, Mass.</i>	21
Waltham, <i>Mass.</i> , Public Library	2
Walton, <i>Rev. J. P.</i> , <i>Muscatine, Iowa</i>	2
Ware, William & Co.	1
Warren, Charles E., <i>M.D.</i>	1
Warren, James W., <i>M.D.</i>	130
Warrington, <i>Eng.</i> , Borough of	1
Washington & Lee University, <i>Lezington, Va.</i>	3
Washingtonian Home	1
Waterhouse, S., <i>St. Louis, Mo.</i>	2
Watson, N.	81
Weld, Francis M.	1
Wenham, <i>Mass.</i> , Town Clerk	2
Wesleyan University, <i>Middletown, Conn.</i>	3
West Brookfield, Town of	1
West Virginia Agricultural Experiment Station, <i>Morgantown, W. Va.</i>	13
Western Reserve Historical Society, <i>Cleveland, O.</i>	1
Whitman, G. H., <i>Billerica, Mass.</i>	1
Whitmore, W. H.	1 engraving
Whitney, J. L.	1 broadside
Whitney, S. F., <i>Watertown, Mass.</i>	1
Whitney, <i>Prof. W. D.</i> , <i>New Haven, Conn.</i>	1
Wicks & Phillips, <i>San Francisco, Cal.</i>	2
Wigglesworth, Thomas	1,285
William & Mary, College of, <i>Williamsburg, Va.</i>	1
Williams, Harold, <i>M.D.</i>	5
Wilson, H. W.	53
Wilson, <i>Gen. James G.</i> , <i>New York City</i>	1
Wilstack, John A., <i>Lafayette, Ind.</i>	1
Winchester Home Corporation for Aged Women	1
Wines, Fred H., <i>Springfield, Ill.</i>	1
Wingate, C. E. L.	2
Winn, Henry	1
Winslow, John, <i>Brooklyn, N. Y.</i>	1
Winsor, Justin	1
Winthrop, <i>The Hon. R. C.</i>	1
Wisconsin State Historical Society, <i>Madison, Wis.</i>	2
Woburn, <i>Mass.</i> , Public Library	1
Wolff, Philip	1
Wolverhampton, <i>Eng.</i> , Free Library	1
Woman's Baptist Foreign Missionary Society	1
Woman's Medical College of the N.Y. Infirmary, <i>New York City</i>	1
Woman's Relief Corps, Dept. of Massachusetts	3
Wood, C. H. W.	1
Wood, Henry	2
Wood, Horatio, <i>Lowell, Mass.</i>	1
Woodbury, C. J. H.	1
Woodman, C. H.	1
Worcester, City of	1
Worcester, <i>Mass.</i> , Free Public Library	1
Worcester, <i>Mass.</i> , Polytechnic Institute	1
World's Columbian Exposition, <i>Chicago, Ill.</i>	54 broadsides
Yale University, <i>New Haven, Conn.</i>	3
Yale University Observatory, <i>New Haven, Conn.</i>	1
Young Men's Christian Association, <i>Albany, N. Y.</i>	24
Young Men's Christian Association, Harvard University	1
Young Men's Christian Association, <i>New York City</i>	1
Young Men's Christian Associations, International Committee, <i>N. Y. City</i>	1
Young Men's Library, <i>Atlanta, Ga.</i>	1







## APPENDIX VII.

## REGISTRATION.

The first registration, 1854-58, had 17,066 names; the second, 1859-67, had 52,829 names; the third, 1868 to April 30, 1886, had 227,581 names.	1886.	1887.	1888.	1889.	1890.	1891.
Central Library . . . . .	8,907	9,733	7,752	7,133	6,370	5,542
East Boston branch . . . . .	1,307	1,117	877	1,065	896	682
South Boston branch . . . . .	1,862	1,781	1,395	2,156	1,435	1,277
Roxbury branch . . . . .	1,372	1,585	1,260	1,769	1,371	993
Charlestown branch . . . . .	630	1,623	860	762	735	665
Brighton branch . . . . .	323	865	270	277	286	179
Dorchester branch . . . . .	1,405	1,231	815	1,005	827	659
South End branch . . . . .	1,484	1,511	1,040	1,740	1,470	892
Jamaica Plain branch . . . . .	874	926	705	892	785	613
Totals . . . . .	18,254	19,872	14,974	16,799	14,175	11,502

## APPENDIX VIII.

## READING.

	Bates Hall.	Lower Hall and Branches.
I. Fiction and books for the young . . . . .	.....	64.03
II. History, biography, and travel . . . . .	48.	15.27
III. Arts and science . . . . .	43.85	6.37
IV. Periodicals . . . . .	4.68	5.78
V. Miscellaneous . . . . .	3.47	8.55
Totals . . . . .	100.00	106.00



## APPENDIX IX.

## FINANCIAL STATEMENT.

GENERAL LIBRARY ACCOUNTS.	Expended, 1891.
Binding materials . . . . .	\$2,264 64
books . . . . .	1,636 23
Books, City appropriation . . . . .	\$26,205 56
Income from Trust funds . . . . .	9,842 29
	<hr/> 86,047 85
Periodicals . . . . .	4,627 00
Expense (miscellaneous: water-rates, cleaning, ice., etc.) . . . . .	3,486 29
Fuel . . . . .	2,909 17
Furniture, etc. . . . .	603 02
Gas . . . . .	3,457 57
Printing and cataloguing . . . . .	7,409 41
Stationery . . . . .	1,080 46
Salaries . . . . .	81,638 11
Transportation, postage, etc. . . . .	2,507 92
Rents . . . . .	6,982 51
Repairs . . . . .	2,572 88
Electric lighting . . . . .	2,329 63
Total . . . . .	<hr/> <u>\$159,552 69</u>

NOTE. — The cost of maintaining the branches, \$45,445.10, makes part of the general items of the several appropriations.

Receipts from fines and sales of catalogues, \$3,591.11.

## LIBRARY TRUST FUNDS.

**BIGELOW FUND.** — This is a donation made by the late JOHN P. BIGELOW, in August, 1850, when Mayor of the city.

The income from this fund is to be appropriated to the purchase of books for the increase of the Library.

Invested in one City of Boston Six per cent. Bond for . . . \$1,000 00

Payable to the Chairman of the Committee on the Public Library for the time being.

**BATES FUND.** — This is a donation made by the late JOSHUA BATES, of London, in March, 1853.

Invested in one City of Boston Six per cent. Bond for . . . \$50,000 00

"The income only of this fund is to be, each and every year, expended in the purchase of such books of permanent value and authority as may be found most needful and most useful." Payable to the Mayor of the City for the time being.

**BOWDITCH FUND.** — This is the bequest of J. INGERSOLL BOWDITCH.

Invested in one City of Boston Three and one-half per cent.

Bond . . . . . \$10,000 00

The whole income in each and every year to be expended in the purchase of books of permanent value and authority in mathematics and astronomy.

**PHILLIPS FUND.** — This is a donation made by the late JONATHAN PHILLIPS, of Boston, in April, 1853.

Invested in one City of Boston Six per cent. Bond, for . . . \$10,000 00

The interest on this fund is to be used exclusively for the purchase of books for said Library.

Also, a bequest by the same gentleman, in his will, dated 20th September, 1849.

Invested in one City of Boston Six per cent. Bond, for . . . \$20,000 00

The interest on which is to be annually devoted to the maintenance of a Free Public Library.

Both of these items are payable to the Mayor of the City for the time being.

**ABBOTT LAWRENCE FUND.** — This is the bequest of the late ABBOTT LAWRENCE, of Boston.

Invested in one City of Boston Six per cent. Bond, for . . . \$10,000 00

The interest on this fund is to be exclusively appropriated for the purchase of books for the said Library, having a permanent value.

**EDWARD LAWRENCE FUND.** — This is the bequest of the late EDWARD LAWRENCE, of Charlestown. The following clause from his will explains its purpose: —

"To hold and apply the income, and so much of the principal as they may choose, to the purchase of special books of reference, to be kept and used only at the Charlestown branch of said Public Library."

Invested in one City of Boston Four per cent. Bond, due	
April 1, 1916 . . . . .	<u>\$500 00</u>

**PIERCE FUND.**—This is a donation made by HENRY L. PIERCE, Mayor of the city, Nov. 29, 1873, and accepted by the City Council, Dec. 27, 1873.

Invested in one City of Boston Six per cent. Bond, for . . . . .	<u>\$5,000 00</u>
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**TOWNSEND FUND.**—This is a donation from William Minot and William Minot, Jr., executors of the will of MARY P. TOWNSEND, of Boston, at whose disposal she left a certain portion of her estate in trust, for such charitable and public institutions as they might think meritorious. Said executors accordingly selected the Public Library of the City of Boston as one of such institutions, and attached the following conditions to the legacy: "The income only shall, in each and every year, be expended in the purchase of books for the use of the Library; each of which books shall have been published in some one edition at least five years at the time it may be so purchased."

Invested in one City of Boston Five per cent. Bond, for . . . . .	<u>\$4,000 00</u>
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**TICKNOR BEQUEST.**—By the will of the late GEORGE TICKNOR, of Boston, he gave to the City of Boston, on the death of his wife, all his books and manuscripts in the Spanish and Portuguese languages, about four thousand volumes, and also the sum of four thousand dollars. After the receipt of said sum, the city is required to spend not less than one thousand dollars in every five years during the twenty-five years next succeeding (*i.e.*, the income of four thousand dollars, at the rate of five per cent. per annum), in the purchase of books in the Spanish and Portuguese languages and literature. At the end of twenty-five years the income of the said sum is to be expended annually in the purchase of books of permanent value, either in the Spanish or Portuguese language, or in such other languages as may be deemed expedient by those having charge of the Library. The books bequeathed or purchased are always to be freely accessible for reference or study, but are not to be loaned for use outside of the Library building. If these bequests are not accepted by the city, and the trusts and conditions faithfully executed, the books, manuscripts, and money are to be given to the President and Fellows of Harvard College.

In order that the city might receive the immediate benefit of this contribution, Anna Ticknor, widow of the donor, relinquished her right to retain during her life the books and manuscripts, and placed them under the control of the city, the City Council having previously accepted the bequests in accordance with the terms and conditions of said will, and the Trustees of the Public Library received said bequests on behalf of the city, and made suitable arrangements for the care and custody of the books and manuscripts.

Invested in one City of Boston Four per cent. Bond, for . . . . .	<u>\$4,000 00</u>
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**FRANKLIN CLUB FUND.**—This is a donation made in June, 1863, by a literary association of young men in Boston, who, at the dissolution of the association, authorized its trustees, Thomas Minns, John J. French, and J. Franklin Reed, to dispose of the funds on hand in such a manner as to them should seem judicious. They elected to bestow it on the Public Library, attaching to it the following conditions: "In trust that the income, but the income only, shall, year by year, be expended in the purchase of books of permanent value for the use of the free Public Library of the city, and, as far as practicable, of such a character as to be of special interest to young men."

Invested in one City of Boston Four per cent. Bond, for . . .	\$1,000 00
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The City Council accepted said bequest and authorized the Trustees of the Public Library to receive the same, and to invest it in the City of Boston Bonds, the income of which is to be expended by said Trustees in such manner as they may deem for the best interests of the library.

Invested in the City of Boston Four per cent. Bonds	\$3,700 00
“ “ “ Three and one-half per cent. Bonds,	1,400 00
“ 16 shares B. & A. R.R. Co. Stock, par value \$100 each,	1,600 00
“ 6 shares B. & P. R.R. Co. Stock, par value \$100 each,	600 00
“ 9 shares Fitchburg R.R. Co. Stock, par value \$100 each,	900 00
“ 1 share Vt. & Mass. R.R. Co. Stock, par value \$100 each,	100 00
“ 18 shares Cambridge Lyceum Stock, par value \$20 each,	360 00
	<hr/>
	\$8,660 00

"I give to the Charlestown Public Library \$10,000, to be invested on interest, which interest is to be applied to the purchase of books published before 1850. I also give to said Public Library my own private library, and the portrait of my grandfather, Richard Devens." Bequest accepted by City Council, July 31, 1877.

Invested in one City of Boston Six per cent. Bond, for . . .	\$10,000 00
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Invested in one City of Boston Four per cent. Bond, for . . .	\$1,000 00
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One City of Boston Four per cent. Bond, for . . . .	\$50,000 00
“ “ “ “ . . . .	11,800 00
	<hr/>
	\$61,800 00

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Two City of Boston Five per cent. Bonds, for . . . .	\$1,500 00
One City of Boston Four per cent. Bond, for . . . .	500 00
	<u>\$2,000 00</u>

**SOUTH BOSTON BRANCH LIBRARY TRUST FUND.** — Donation of a citizen of South Boston, the income of which is to be expended for the benefit of the South Boston Branch Library.

Invested in one city of Boston Four per cent. Bond, for . . .	<u>\$100 00</u>
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#### RECAPITULATION OF PUBLIC LIBRARY TRUST FUNDS.

Scholfield bequests . . . . .	\$61,800 00
Bates donation . . . . .	50,000 00
Phillips bequest . . . . .	20,000 00
Bowditch bequest . . . . .	10,000 00
Phillips donation . . . . .	10,000 00
Charlotte Harris bequest . . . . .	10,000 00
Abbott Lawrence bequest . . . . .	10,000 00
Pierce donation . . . . .	5,000 00
Townsend bequest . . . . .	4,000 00
Ticknor bequest . . . . .	4,000 00
Treadwell bequest . . . . .	8,660 00
Green donations . . . . .	2,000 00
Bigelow donation . . . . .	1,000 00
Thomas B. Harris bequest . . . . .	1,000 00
Franklin Club donation . . . . .	1,000 00
Edward Lawrence bequest . . . . .	500 00
South Boston Branch Library Trust Fund . . . . .	100 00
	<u>\$199,060 00</u>
Invested funds . . . . .	<u>\$199,060 00</u>





## APPENDIX XI.

## LIBRARY SERVICE.

Executive department . . .	8	South Boston branch . . .	7
Catalogue department . . .	13	Roxbury Branch . . .	6
Book department . . .	8	Charlestown branch . . .	6
Bates Hall circulation department . . .	20	Brighton branch . . .	3
Lower Hall circulation department . . .	21	Dorchester branch . . .	5
Janitor's department . . .	2	South-End branch . . .	5
Bindery . . .	9	Jamaica Plain branch . . .	4
East Boston branch . . .	5	North-End branch . . .	3
		Deliveries . . .	10
		Total . . .	133

At some of the branch libraries occasional extra assistance is employed when necessary.

## AGENTS.

Messrs. W. B. Clarke & Co., and Mr. Carl Schoenhof, *Boston*.  
 Mr. Edward G. Allen (for English patents), *London*.  
 Messrs. Kegan Paul, Trench, Trübner & Co., Limited, *London*.  
 Deuerlich'sche Buchhandlung, *Göttingen*.

## LOCATION OF THE BRANCH LIBRARIES AND DELIVERY STATIONS.

Allston delivery station, 26 Franklin street, Allston.  
 Ashmont delivery station, 25 Argyle street.  
 Bird-Street delivery station, 6 Wayland street, Dorchester.  
 Brighton branch, Holton Library building, Rockland street.  
 Charlestown branch, old City Hall, City square, Charlestown.  
 Dorchester branch, Arcadia, *cor.* Adams st.  
 Dorchester Station delivery, 1 Milton avenue.  
 East Boston branch, old Lyman School building, Meridian street.  
 Jamaica Plain branch, Curtis Hall, Centre street.  
 Lower Mills delivery station, Washington street, *near* River street.  
 Mattapan delivery station, River, *cor.* Oakland street.  
 Mount Bowdoin delivery station, Washington, *cor.* Eldon street.  
 Neponset delivery station, Wood's block.  
 North End branch, 166 Hanover street.  
 Roslindale delivery station, Florence, *cor.* Ashland street.  
 Roxbury branch, 46 Millmont street.  
 South Boston branch, 372 West Broadway, *cor.* E. street.  
 South-End branch, English High-School building, Montgomery street.  
 West Roxbury delivery station, Centre, *near* Mt. Vernon street.



## APPENDIX XII.

## EXAMINING COMMITTEES FOR FORTY YEARS.

The following gentlemen have served on the Examining Committees for the years given. The names in *italics* are those of trustees who have acted as chairmen of the various committees. The thirty-fourth year was from May 1 to Dec. 31, 1885, a period of eight months, for which no Examining Committee was appointed.

- |   |   |
|---|---|
| Abbott, <i>Hon.</i> J. G., 1870.                | Collar, Wm. C., 1874.                         |
| Abbott, <i>S. A. B.</i> , 1880.                 | Cudworth, Warren H., <i>D.D.</i> , 1878.      |
| Adams, Nehemiah, <i>D.D.</i> , 1860.            | Curtis, Charles P., 1862.                     |
| Adams, Wm. T., 1875.                            | Curtis, Daniel S., 1872.                      |
| Alger, <i>Rev.</i> Wm. R., 1870.                | Curtis, Thos. B., <i>M.D.</i> , 1874.         |
| Amory, <i>Miss</i> Anna S., 1890, 1891.         | Cushing, Thomas, 1885.                        |
| Andrew, <i>Hon.</i> John F., 1888.              | Dalton, Charles H., 1884.                     |
| Appleton, <i>Hon.</i> Nathan, 1854.             | Dana, Samuel T., 1857.                        |
| Apthorp, Wm. F., 1883.                          | Dean, Benjamin, 1873.                         |
| Arnold, Howard P., 1881.                        | Denny, Henry G., 1876.                        |
| Aspinwall, <i>Col.</i> Thomas, 1860.            | Dexter, <i>Rev.</i> Henry M., 1866.           |
| Attwood, G., 1877.                              | Dillingham, <i>Rev.</i> Pitt, 1886.           |
| Bailey, Edwin C., 1861.                         | Dix, James A., 1860.                          |
| Ball, Joshua D., 1861.                          | Doherty, Philip J., 1888.                     |
| Bangs, Edward, 1887.                            | Donahoe, Patrick, 1869.                       |
| Barnard, James M. 1866.                         | Durant, Henry F., 1863.                       |
| Bartlett, Sidney, 1869.                         | Duryea, Jos. T., <i>D.D.</i> , 1880.          |
| Beebe, James M., 1858.                          | Dwight, John S., 1868.                        |
| Beecher, <i>Rev.</i> Edward, 1854.              | Dwight, Thomas, <i>M.D.</i> , 1880.           |
| Bent, Samuel Arthur, 1890, 1891.                | Eastburn, Manton, <i>D.D.</i> , 1863.         |
| Bigelow, Jacob, <i>M.D.</i> , 1857.             | Eaton, William S., 1887.                      |
| <i>Bigelow, Hon. John P.</i> , 1856.            | Edes, Henry H., 1886.                         |
| Blagden, George W., <i>D.D.</i> , 1856.         | Eliot, Samuel, <i>LL.D.</i> , 1868.           |
| Blake, John G., <i>M.D.</i> , 1883, 1891.       | Ellis, Arthur B., 1888, 1889.                 |
| Bodfish, <i>Rev.</i> Joshua P., 1879, 1891.     | Ellis, Calvin, <i>M.D.</i> , 1871.            |
| Bowditch, Henry I., <i>M.D.</i> , 1855.         | Ellis, Geo. E., <i>D.D.</i> , 1881.           |
| <i>Bowditch, Henry I.</i> , <i>M.D.</i> , 1865. | Endicott, William, jr., 1878.                 |
| Bowditch, H. P., <i>M.D.</i> , 1881.            | Evans, George W., 1887, 1888, 1889.           |
| Bowditch, J. Ingersoll, 1855.                   | Field, Walbridge A., 1866.                    |
| Bowman, Alfonzo, 1867.                          | Fields, James T., 1872.                       |
| Bradford, Charles F., 1868.                     | Fitz, Reginald H., 1879.                      |
| Brewer, Thomas M., 1865.                        | Foote, <i>Rev.</i> Henry W., 1864.            |
| Brimmer, <i>Hon.</i> Martin, 1890, 1891.        | Fowle, William F., 1864.                      |
| Brooks, <i>Rev.</i> Phillips, 1871.             | Freeland, Charles W., 1867.                   |
| Browne, Alex. Porter, 1891.                     | Frost, Oliver, 1854.                          |
| Browne, Causten, 1876.                          | <i>Frothingham, Richard</i> , 1876.           |
| Buckingham, C. E., <i>M.D.</i> , 1872.          | Furness, Horace Howard, <i>LL.D.</i> , 1882.  |
| Burroughs, <i>Rev.</i> Henry, jr., 1869.        | Gannett, Ezra S., <i>D.D.</i> , 1855.         |
| Chadwick James R., <i>M.D.</i> , 1877.          | Gay, George H., 1876.                         |
| Chaney, <i>Rev.</i> George L., 1868.            | Gilchrist, Daniel S., 1872.                   |
| Chase, George B., 1876.                         | Gordon, George A., <i>D.D.</i> , 1885.        |
| <i>Chase, George B.</i> , 1877, 1885.           | Gould, A. A., <i>M.D.</i> , 1864.             |
| Cheney, <i>Mrs.</i> Ednah D., 1881.             | Grant, Robert, 1884.                          |
| <i>Clapp, William W.</i> , jr., 1854.           | Gray, John C., jr., 1877.                     |
| Clarke, James Freeman, <i>D.D.</i> , 1877.      | <i>Green, Samuel A.</i> , <i>M.D.</i> , 1868. |
| <i>Clarke, James Freeman, D.D.</i> , 1882.      |   |

- Greenough, William W.*, 1858, 1874, 1883, 1886.  
*Grinnell, Rev. C. E.*, 1874.  
*Hale, Rev. Edward E.*, 1858.  
*Hale, Mrs. George S.*, 1887, 1888.  
*Hale, Moses L.*, 1862.  
*Haskins, Rev. George F.*, 1865.  
*Hassam, John T.*, 1885.  
*Hayes, Hon. F. B.*, 1874.  
*Haynes, Henry W.*, 1879.  
*Haynes, Henry W.*, 1881, 1884.  
*Hayward, George, M.D.*, 1863.  
*Heard, John, jr.*, 1888, 1889, 1891.  
*Heard, John T.*, 1853.  
*Herford, Brooke, D.D.*, 1884.  
*Herrick, Samuel E., D.D.*, 1888, 1889.  
*Higginson, Thomas W.*, 1883.  
*Hill, Clement Hugh*, 1880.  
*Hillard, Hon. George S.*, 1853.  
*Hillard, Hon. George S.*, 1873.  
*Hodges, Richard, M., M.D.*, 1870.  
*Holmes, Edward J.*, 1881, 1884.  
*Holmes, Oliver W., M.D.*, 1858.  
*Holmes, Oliver, W., jr.*, 1882.  
*Homans, Charles D., M.D.*, 1867.  
*Homans, Mrs. Charles D.*, 1885, 1886, 1887.  
*Homer, George*, 1870.  
*Homer, Peter T.*, 1857.  
*Hubbard, James M.*, 1891.  
*Hubbard, William J.*, 1858.  
*Hunnewell, James F.*, 1880.  
*Hyde, George B.*, 1879.  
*Jeffries, B. Joy, M.D.*, 1869.  
*Jenkins, Charles E.*, 1879.  
*Jewell, Hon. Harvey*, 1863.  
*Jordan, Eben D.*, 1878.  
*Kidder, Henry P.*, 1870.  
*Kimball, David P.*, 1874.  
*Kimball, Henry H.*, 1865.  
*Kirk, Edward N., D.D.*, 1859.  
*Lawrence, Hon. Abbott*, 1853.  
*Lawrence, Abbott*, 1859.  
*Lawrence, Miss Harriette S.*, 1890.  
*Lawrence, James*, 1855.  
*Lee, Miss Alice*, 1889, 1890, 1891.  
*Lewis, Weston*, 1872, 1878.  
*Lincoln, Hon. F. W.*, 1856.  
*Lincoln, Solomon*, 1886.  
*Little, James L.*, 1864.  
*Lombard, Prof. Josiah L.*, 1868.  
*Loring, Hon. Charles G.*, 1855.  
*Lothrop, Loring*, 1866.  
*Lowell, Augustus*, 1883.  
*Lowell, Edward J.*, 1885.  
*Lunt, Hon. George*, 1874.  
*Lyman, George H., M.D.*, 1885.  
*McCleary, Samuel F.*, 1890.  
*Manning, Rev. Jacob M.*, 1861.  
*Mason, Rev. Charles*, 1857.  
*Mason, Robert M.*, 1869.  
*Maxwell, J. Audley*, 1883.  
*Metcalf, Rev. Theodore A.*, 1888, 1889.  
*Minns, Thomas*, 1864.  
*Minot, Francis*, 1866.  
*Morrill, Charles J.*, 1885.  
*Morse, John T., jr.*, 1879.  
*Morse, Robert M., jr.*, 1878.  
*Morton, Hon. Ellis W.*, 1871.  
*Mudge, Hon. E. R.*, 1871.  
*Neale, Rollin H., D.D.*, 1853.  
*Noble, John*, 1882.  
*Norcross, Otis*, 1880.  
*O'Brien, Hugh*, 1879.  
*O'Reilly, John Boyle*, 1878.  
*Otis, G. A.*, 1860.  
*Paddock, Rt. Rev. Benj. H.*, 1876.  
*Parker, Charles Henry*, 1888, 1889.  
*Parkman, Henry*, 1885.  
*Parks, Rev. Leighton*, 1882.  
*Perkins, Charles C.*, 1871.  
*Perry, Thomas S.*, 1879, 1882, 1883, 1884, 1885, 1890, 1891.  
*Phillips, John C.*, 1882.  
*Phillips, Jonathan*, 1854.  
*Pierce, Hon. Henry L.*, 1891.  
*Prescott, William H., LL.D.*, 1853.  
*Prince, Hon. F. O.*, 1888, 1889, 1890, 1891.  
*Putnam, George, D.D.*, 1870.  
*Putnam, Hon. John P.*, 1865.  
*Randall, Charles L., M.D.*, 1884.  
*Rice, Hon. Alexander H.*, 1860.  
*Rogers, Prof. William B.*, 1861.  
*Rollins, J. Wingate*, 1888, 1889.  
*Ropes, John C.*, 1872.  
*Rotch, Benjamin S.*, 1863.  
*Runkle, Prof. J. D.*, 1882.  
*Russell, Samuel H.*, 1880.  
*Sanger, Hon. George P.*, 1860.  
*Seaver, Edwin P.*, 1881.  
*Shepard, Hon. Harvey N.*, 1888, 1889.  
*Shurtliff, Hon. Nathaniel B.*, 1857.  
*Smith, Charles C.*, 1873.  
*Smith, Mrs. Charles C.*, 1881, 1886.  
*Sprague, Charles J.*, 1859.  
*Sprague, Homer B.*, 1882.  
*Stedman, C. Ellery, M.D.*, 1888.  
*Stevens, Oliver*, 1858.  
*Stevenson, Hon. J. Thomas*, 1856.  
*Stockwell, S. N.*, 1861.  
*Stone, Col. Henry*, 1885, 1886, 1887.  
*Storv, Joseph*, 1856.  
*Sullivan, Richard*, 1883, 1884.  
*Teele, John O.*, 1886.  
*Thaxter, Adam W.*, 1855.  
*Thayer, George A.*, 1875.  
*Thayer, Rev. Thomas B.*, 1862.  
*Thomas, B. F.*, 1875.  
*Thomas, Seth J.*, 1856.  
*Ticknor, Miss Anna E.*, 1891.  
*Ticknor, George*, 1853, 1854, 1855, 1859, 1863, 1866.  
*Tobey, Hon. Edward S.*, 1862.  
*Towmbly, Rev. A. S.*, 1883, 1884.  
*Upham, J. B., M.D.*, 1865.

Vibbert, *Rev.* Geo. H., 1873.  
Wales, George W., 1875.  
Walley, *Hon.* Samuel H., 1862.  
Ward, *Rev.* Julius H., 1882.  
Ware, Charles E., *M.D.*, 1875.  
Ware, Darwin E., 1881.  
Warner, Hermann J., 1867.  
Warren, *Hon.* Charles H., 1859.  
Warren, J. Collins, *M.D.*, 1878.  
Waterston, *Rev.* Robert C., 1867.  
Wells, *Mrs.* Kate G., 1877.  
Wharton, William F., 1886.  
Whipple, *Edwin P.*, 1869.  
Whitmore, *William H.*, 1887.

Whitney, *Daniel H.*, 1862.  
Whitney, Henry A., 1873.  
Wightman, *Hon.* Joseph M., 1859.  
Williams, Harold, *M.D.*, 1888, 1889,  
1890.  
Williamson, William C., 1881.  
Wilson, *Elisha T.*, *M.D.*, 1861.  
Winsor, *Justin*, 1867.  
Winthrop, *Hon.* Robert C., 1854.  
Winthrop, Robert C., jr., 1887.  
Woodbury, Charles Levi, 1871.  
Woolson, *Mrs.* Abba Goold, 1888,  
1889.  
Wright, *Hon.* Carroll D., 1884.

## APPENDIX XIII.

## TRUSTEES FOR FORTY YEARS.

The Honorable Edward Everett was President of the Board from 1852 to 1864; the late George Ticknor in 1865; William W. Greenough, Esq., from 1866 to April, 1888; Samuel A. B. Abbott, Esq., since the latter date.

The Board for 1852 was a preliminary organization; that for 1853 made what is called the first annual report. It consisted of one alderman and one common councilmen, and five citizens at large, till 1867, when a revised ordinance made it to consist of one alderman, two common councilmen, and six citizens at large, two of whom retired, unless reëlected, each year, while the members from the City Council were elected yearly. In 1878 the organization of the Board was changed to include one alderman, one councilman, and five citizens at large, as before 1867; and in 1885, by the provisions of the amended city charter, the representation of the city government upon the Board, by an alderman and a councilman, was abolished, leaving the Board as at present, consisting of five citizens at large.

ABBOTT, SAMUEL A. B., 1879-91.  
 Allen James B., 1852-53.  
 APPLETON, THOMAS G., 1852-57.  
 Barnes, Joseph H., 1871-72.  
 BIGELOW, JOHN P., 1852-68.  
 BOWDITCH, HENRY I., 1865-68.  
 Bradlee, John T., 1869-70.  
 Bradt, Herman D., 1872-73.  
 Braman, Jarvis D., 1868-69.  
 BRAMAN, JARVIS D., 1869-72.  
 Brown, J. C. J., 1861-62.  
 Burditt, Charles A., 1873-76.  
 Carpenter, George O., 1870-71.  
 CHASE, GEORGE B., 1877-85.  
 Clark, John M., 1855-56.  
 Clark, John T., 1873-78.  
 CLARKE, JAMES FREEMAN, 1878-88.  
 Clapp, William W., jr., 1864-66.  
 Coe, Henry F. 1878.  
 Crane, Samuel D., 1860-61.  
 CURTIS, DANIEL S., 1873-75.  
 Dennie, George, 1858-60.  
 Dickinson, M. F., jr., 1871-72.  
 Drake, Henry A., 1863-64.  
 Erving, Edward S., 1852.  
 EVERETT, EDWARD, 1852-64.  
 Flynn, James J., 1883.  
 Frost, Oliver, 1854-55; 1856-58.  
 FROTHINGHAM, RICHARD, 1875-79.

Gaffield, Thomas, 1867-68.  
 GREEN, SAMUEL A., 1868-78.  
 GREENOUGH, WILLIAM W., 1856-88.  
 Guild, Curtis, 1876-77; 1878-79.  
 Harris, William G., 1869-70.  
 Haynes, Henry W., 1858-59.  
 HAYNES, HENRY W., 1880-91.  
 HILLARD, GEORGE S., 1872-75; 1876-77.  
 Howes, Osborne, jr., 1877-78.  
 Ingalls, Melville E., 1870-71.  
 Jackson, Patrick T., 1864-65.  
 Jenkins, Edward J., 1885.  
 Keith, James M., 1868-70.  
 Kimball, David P., 1874-76.  
 Lawrence, James, 1852.  
 Lee, John H., 1884-85.  
 Lewis, Weston, 1867-68.  
 LEWIS, WESTON, 1868-79.  
 LEWIS, WINSLOW, 1867.  
 Little, Samuel, 1871-73.  
 Messinger, George W., 1855.  
 Morse, Godfrey, 1883-84.  
 MORTON, ELLIS W., 1870-73.  
 Munroe, Abel B., 1854.  
 Newton, Jeremiah L., 1867-68.  
 Niles, Stephen R., 1870-71.  
 O'Brien, Hugh, 1879-82.  
 Pease, Frederick, 1872-3.

Perkins, William E., 1873-74.	Story, Joseph, 1855-56; 1865-67.
Perry, Lyman, 1852.	THOMAS, BENJAMIN F., 1877-78.
Plummer, Farnham, 1856-57.	TICKNOR, GEORGE, 1852-66.
Pope, Benjamin, 1876-77.	Tyler, John S., 1863-64; 1866-67
Pope, Richard, 1877-78.	Warren, George W., 1852-54.
Pratt, Charles E., 1880-82.	Washburn, Frederick L., 1857-58
PIERCE, PHINEAS, 1888-91.	WHIPPLE, EDWIN P., 1868-70.
PRINCE, FREDERICK O., 1888-91.	Whitmore, William H., 1882-83.
PUTNAM, GEORGE, 1868-77.	WHITMORE, WILLIAM H., 1885-88
Reed, Sampson, 1852-53.	Whitney, Daniel H., 1862-63.
RICHARDS, WILLIAM R., 1889-91.	Whitten, Charles V., 1883-85.
Sanger, George P., 1860-61.	Wilson, Elisha T., 1861-63.
Sears, Philip H., 1859-60.	Wilson, George, 1852.
Seaver, Benjamin, 1852.	WINSOR, JUSTIN, 1867.
Shepard, Harvey N., 1878-79.	Wolcott, Roger, 1879.
SHURTLEFF, NATHANIEL B., 1852-68.	Wright, Albert J., 1868-69.
Stebbins, Solomon B., 1882-83.	

Citizens at large in SMALL CAPITALS.



ANNUAL REPORT  
OF THE  
MARKET DEPARTMENT,  
FOR THE YEAR 1891.

JANUARY 22, 1891.

HON. NATHAN MATTHEWS, JR.,

*Mayor of the City of Boston:*

SIR: In conformity to Chap. 3, Sec. 22, of the Revised Ordinances, I herewith submit the annual report for the Department of Markets.

The work of the department during the year has been of the usual routine nature.

The portions of the buildings (Faneuil Hall and New Faneuil Hall) used for market purposes are in good repair, and several expensive repairs have been made and are in contemplation, — all of which is done at the expense of the lessees. The rents have been promptly paid, the ordinances for the government of the markets cheerfully complied with, and the reputation of the market for honorable dealing has been fully sustained; the lighting of the market by incandescent electric light has given universal satisfaction, and has been a saving of expense to the city as well as great improvement to the appearance of the markets. The leases which were made April 1, 1887, for five years will expire

on the first of April, 1892, and will have to be considered by the City Council before that date. I would again call attention to a recommendation made in a previous report to the necessity for a change in the system of drainage for the markets which, while it will involve considerable expense, should, in my opinion, be completed at an early day.

During the year I have condemned and ordered to be destroyed as unfit for food, nineteen hundred and seventy-four (1,974) pounds poultry, three hundred and thirty (330) pounds veal, and one hundred and eighteen (118) pigeons.

In the same time the market police have made eighty-two (82) arrests and convictions for the following offences, viz. : larceny, 32 ; drunkenness, 35 ; assault and battery, 5 ; violation of city ordinances, 3 ; cruelty to animals, 3 ; embezzlement, 2 ; obtaining goods under false pretences, 1 ; passing counterfeit coin, 1.

The income from the Department of Markets for the thirteen months ending January 31, 1892, has been as follows :

From rents of stalls and cellars in Faneuil-	
Hall and New Faneuil Hall Markets . . .	\$91,990 38
From rents of outside stands . . .	1,524 25
From weighing at city scales . . .	497 03
From sale of old copper pipe . . .	147 84
<b>Total income . . . . .</b>	<b>\$94,159 50</b>

The expenditures during the same time have been as follows :

For salary of Superintendent of Market . . .	\$2,708 00
For salary of Deputy Superintendent of Market . . .	1,625 00
For salary of Weigher at City Scales . . .	1,083 36
For salary of three market police . . .	3,900 00
For extra police . . .	345 00
For gas and electric light . . .	673 36
For sundry expenses, including telephone service, water, fuel, brooms, repairs, and electric service, clocks, stoves, etc. . .	707 39
<b>Total expense . . . . .</b>	<b>\$11,042 11</b>

Leaving an unexpended balance of appropriation of . . . . . \$166 90

The property in the department belonging to the city is as follows, viz. : electric wires and fittings for furnishing electric light in Faneuil Hall and New Faneuil Hall Markets, cost, \$1,672.00 ; one Morse safe, \$150.00 ; one Howard watch clock, \$200.00 ; one watch clock, \$50.00 ; two roll-top desks and roll case, \$125.00 ; two clothes presses, \$30.00 ; bookcase, chairs, carpets, stoves, and small supplies, \$75.00. Total, \$2,302.00.

Respectfully submitted,

GEORGE E. McKAY,  
*Superintendent.*





[DOCUMENT 25 — 1892.]



## ANNUAL REPORT

OF THE

# DEPARTMENT OF MOUNT HOPE CEMETERY,

FOR THE YEAR 1891.

BOSTON, Jan. 31, 1892.

HON. NATHAN MATTHEWS, JR.,

*Mayor of the City of Boston:*

SIR: The Board of Trustees of Mount Hope Cemetery Department respectfully submit the following report of the department for the year 1891 and January, 1892, included:

There was an unexpended balance in the treasury on the first day of January, 1891, of \$1,083.99. The income of the Perpetual Care Fund for the year 1891 was \$1,487.33.

There were special appropriations for the Army and Navy Lot of \$4,000; for the City Lot, \$5,000; and a regular appropriation for the general fund of \$6,000.

The revenue derived from the cemetery for the year 1891 and January, 1892, was \$22,197.05, making the total amount for expenditures under the regulations of the Trustees, \$38,281.04, as will be shown by the schedule; there was an unexpended balance in the treasury, January 31, 1892, of \$1,156.64.

The Trustees during the past year have had ground prepared for 1,073 graves, constructed an avenue, loamed and

seeded 3,700 graves in Sections B and C, in that part of the cemetery known as the City Lot, in which are buried the city's poor. The entire appropriation has been expended on the lot, and it is to-day in as good condition as any other part of the cemetery.

The Trustees have also expended the appropriation of \$4,000, enlarging the Army and Navy Lot, removing and remodelling the old, and putting in new granite curbing, steps, and posts. The ground has been prepared and graded, making an addition of 204 graves. Before proceeding to enlarge the lot the Trustees invited representatives from all of the Boston G.A.R. Posts to confer with them at the cemetery, relative to the best plan for laying out the lot.

Accordingly, on the 15th day of July, representatives of the several Posts met the Trustees at the cemetery, and, by a unanimous vote, recommended the plan of enlarging, which has been carried out by the Trustees; regulation tablets will be placed on all the graves as soon as furnished by the United States Government.

As regards general work in the cemetery, 270 linear feet of avenue, with rock drain through the centre, have been constructed; 400 linear feet of avenue have been repaired; new hot-beds have been built in addition to the greenhouses, and many improvements have been made on the buildings and grounds.

The number of interments for 1891, including January, 1892, was as follows, viz. :

In private lots . . . . .	275
In Cypress Vale and in Maple Grove . . . . .	335
Deposited in receiving-tomb . . . . .	52
In City Lot, free, expense of city . . . . .	546
In City Lot, paid . . . . .	547
<b>Total number of interments . . . . .</b>	<b>1,755</b>

#### RECEIPTS IN 1891.

Balance January 1, 1891 . . . . .	\$1,083 99
Appropriation, General Fund . . . . .	6,000 00
Appropriation, Army and Navy Lot . . . . .	4,000 00
Appropriation, City Lot . . . . .	5,000 00
Income of Perpetual Care Fund . . . . .	1,487 33
For sale of lots . . . . .	5,690 00
For digging graves . . . . .	6,242 60

*Carried forward,*

**\$29,503 92**

<i>Brought forward,</i>	\$29,503 92
For graves in Maple Grove . . . .	2,621 00
For care of lots . . . . .	2,129 50
For foundations for monuments and head-stones . . . . .	1,189 32
For use of receiving-tomb . . . .	611 00
For flowers, plants, etc. . . . .	465 55
For myrtling graves and sodding lots . .	177 00
For sundry objects . . . . .	1,583 75
	<hr/>
	<u>\$38,281 04</u>

## EXPENDITURES.

## JANUARY, 1891.

Jan. 15.	Jas. H. Morton, salary,	\$166 67
Jan. 15.	Jas. H. Morton, sundries,	12 65
Nov., } 1890.	N. A. Apollonio, salary,	125 00
Dec., }		
Jan., 1891, to }	Water-rate,	62 55
Jan., 1892. }		
Jan. 6.	C. W. Whittemore, grain,	31 40
Jan. 12.	James Travers, blacksmith work,	18 90
Dec. 8, 1890.	Thomas Mayo, plumbing,	17 07
Jan. 13, 1891.	J. Baker & Co., manila,	8 71
Dec. 29, 1890.	W. E. Gilmour, glass and putty,	5 50
Dec. 23, 1890.	Gilbride & Grey, tobacco stems,	3 70
Jan. 12, 1891.	Rockwell & Churchill, printing,	4 65
Nov. 24, 1890.	J. W. Cox, expressing,	2 48
Jan. 10, 1891.	Printing department,	1 20

## FEBRUARY, 1891.

Feb. 15.	Jas. H. Morton, salary,	166 67
Feb. 15.	Jas. H. Morton, sundries,	19 21
Feb. 14.	C. W. Whittemore, grain,	26 50
Feb. 10.	Printing department,	18 08
Feb. 12.	James Travers, blacksmith work,	11 75
Jan. 15.	Thos. Mayo, plumbing,	8 10
Feb. 4.	Advertising in "Herald," 2/4; "Traveller," 2/2; "Journal," 1/31; "Transcript," 1/31; and "Globe," 2/4,	20 38
Feb. 9.	S. Hobbs & Co., stationery,	6 48
March 27 to } Sept. 9, 1891. }	Geo. C. Cook, oil,	5 25
Jan. 28, 1891.	Gilbride & Grey, shovels and axe-handles,	6 90

*Carried forward,*Digitized by Google \$749 80

*Brought forward,*

\$749 80

## MARCH, 1891.

March 15.	Jas. H. Morton, salary,	166 67
March 15.	Jas. H. Morton, sundries,	15 17

## APRIL, 1891.

March 10.	Rockwell & Churchill, printing,	141 09
Feb., March, } and April. }	N. A. Apollonio, salary,	125 00
April 7.	Geo. M. Winslow & Co., coal,	108 90
April 10.	J. H. Cronin, grave-markers,	54 51
April 13.	C. W. Whittemore, grain,	54 07
April 15.	James Travers, blacksmith work,	41 30
July 1.	N.E. Telephone Co., rent,	30 00
March 14.	Thomas Mayo, plumbing,	15 49
April 13.	A. H. Hews & Co., flower-pots,	26 50
March 28.	Allen Fertilizing Company,	36 00
March 10.	Gilbride & Grey, seeds,	8 57
March 17.	P. Cushing, mats,	12 50
March 10.	Printing department,	2 08
Dec., 1890.	M. S. Morton, sundries,	2 06
April 15.	Jas. H. Morton, salary,	166 67
April 15.	Jas. H. Morton, sundries,	7 30

## MAY, 1891.

May 31.	Jas. H. Morton, salary,	166 67
May 31.	Jas. H. Morton, sundries,	10 02
April 11.	J. Mulrey, manure,	56 00
May 15.	Thos. Godvin, sods,	50 92
May 14.	Jas. Travers, horse-shoeing,	29 05
April 16.	Allen Fertilizing Company,	36 00
May 7.	C. W. Whittemore, grain,	27 65
March 20.	H. Crafts' Sons, cement and bricks,	25 50
Dec. 22, 1890.	John W. Fleming, repair of harnesses,	8 90
April 28, 1891.	Stoughton Rubber Co., blankets,	8 00
April 29, 1891.	L. Nickerson, canvas covers,	8 00
April 17.	S. Hobbs & Co., stationery,	12 25
May 10.	Printing department, stamps,	10 00
May 8.	Advertising, "Transcript," "Herald," "Globe," and "Journal,"	20 38

## JUNE, 1891.

June 15.	Geo. H. Lee, 2 horses,	400 00
June 15.	Jas. H. Morton, salary,	166 67
June 15.	Jas. H. Morton, sundries,	4 90
July 1.	Chas. A. Belford, salary,	242 76
July 1.	Chas. A. Belford, sundries,	5 75
May 28.	John Mulrey, manure,	93 50
June 14.	H. E. Gilchrist, work on books,	9 00
May 9.	Advertising, "Record," "Traveller," "Post," and "Advertiser,"	22 30
June 10.	Rockwell & Churchill, printing,	5 00
April 30.	Sittig Bros., hardware,	3 32

*Carried forward,*

\$3,186 22

## DEPARTMENT OF MOUNT HOPE CEMETERY.

5

*Brought forward,*

\$3,186 22

## JULY, 1891.

July 31.	Chas. A. Belford, salary,	191 67
July 31.	Chas. A. Belford, sundries,	14 86
June 19.	Boston Belting Co., hose, etc.,	190 80
July 31.	Jas. H. Morton, salary,	166 67
June 27 and July 9.	C. W. Whittemore, grain,	84 12
June 30.	Perrin, Seamans, & Co., tools,	83 68
June 23.	Weeks & Potter, soaps, sponges, etc.,	27 83
May 18.	T. E. Turnbull, repair on vehicles,	30 00
May 21.	Henry Crafts' Sons, bricks and cement,	19 75
June 9.	James Travers, blacksmith work,	18 85
June 11.	John W. Fleming, sponges, whips, etc.,	6 25
June 7.	John H. Moy, laying down carpet,	3 50
May 19.	P. F. Murphy, webbing,	3 00
June 25.	Parker's Express,	2 50

## AUGUST, 1891.

May 25.	J. W. Griggs, numbering stones and cutting,	250 74
Aug. 31.	C. A. Belford, salary,	191 67
Aug. 31.	C. A. Belford, sundries,	27 24
Aug. 31.	Jas. H. Morton, salary,	166 67
May, } June, } July. }	N. A. Apollonio, salary,	125 00
July 18.	John P. Remick, buggy,	210 00
Aug. 1.	Moses Coleman & Son, harnesses, etc.,	94 50
July 29.	Perrin, Seamans, & Co., shears, nails, etc.,	43 36
July 29.	Samuel Hobbs & Co., stationery,	78 70
July 13.	H. Whittington & Co., carriage goods,	35 00
July 15.	J. D. Fallon, coaches,	10 00
March 10.	A. G. Cheever, paper boxes,	9 75
June 29.	Union Oil Co., naphtha,	5 25
	London and Liverpool Co., insurance,	80 00

## SEPTEMBER, 1891.

Sept. 30.	C. A. Belford, salary,	191 67
Sept. 30.	C. A. Belford, sundries,	21 51
Oct. 1.	Jas. H. Morton, salary,	166 67
July 7.	L. Tobin, repairs on buildings,	267 27
July 2.	J. M. Fallon, plumbing,	128 40
July 9.	Gilbride & Grey, tools, etc.,	102 60
Aug. 6.	A. S. P. Weeks, blacksmith work,	62 19
Aug. 14.	W. P. Whittemore, grain,	54 65
July 9.	Eng. Vegetable Food Co.,	15 00

## OCTOBER, 1891.

Oct. 31.	C. A. Belford, salary,	191 67
Oct. 31.	C. A. Belford, sundries,	10 10
Oct. 31.	Jas. H. Morton, salary,	166 67
Aug 10.	Rockwell & Churchill, printing,	12 10
July 10.	Printing department,	3 20

*Carried forward,*


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 \$6,751 28  
 Digitized by Google

*Brought forward,*

\$6,751 28

## NOVEMBER, 1891.

Nov. 30.	C. A. Belford, salary,	191 67
Nov. 30.	C. A. Belford, sundries,	25 47
Nov. 30.	Jas. H. Morton, salary,	166 67
Nov. 20.	John Emerson, carpenter repairs,	425 00
Nov. 14.	J. H. Nickelson, plumbing,	46 00
May 26.	Anthony McLaren, plants,	12 80
Sept. 17.	H. Whittington & Co., harness goods,	11 00
Nov. 2.	Galvin Bros., flowers,	25 00
Nov. 19.	Chas. E. Hall & Co. (contract), granite work,	3,375 00

## DECEMBER, 1891.

Dec. 30.	Chas. A. Belford, salary,	191 66
Dec. 30.	Chas. A. Belford, sundries,	8 75
Dec. 30.	Jas. H. Morton, salary,	166 64

## JANUARY, 1892.

Nov. 10, 1891.	M. E. Downey, harness goods,	33 50
Nov. 10, 1891.	T. F. Manning, meal,	31 25
Nov. 9.	Waldo Bros., cement,	25 00
Nov. 6.	Waldo Bros., stones,	40 00
Nov. 1.	J. M. Fallon, plumbing,	1 50
Nov. 1.	E. A. Brown, brooms, etc.,	7 12
Nov. 2.	Thos. Mayo, hardware,	22 35
Nov. 14.	W. P. Whittemore, grain,	65 35
Nov. 15.	A. S. Parker Weeks, blacksmith,	36 02
Nov. 10.	S. Hobbs & Co., paper,	9 00
Nov. 17.	A. H. Hews & Co., flower-pots,	19 25
	Gilbride & Grey, seeds and tools,	68 85
July 1.	W. E. Bunker, clock repaired,	8 00
July 1.	New England Telephone Co., rent,	73 47
July 20.	Carter, Rice, & Co., paper,	3 50
July 11.	T. H. Payson, paving,	28 01
July 20.	Fiske, Coleman, & Co., cement,	25 00
Sept. 4.	I. W. Wheeler & Co., grave covers,	33 60
Sept. 1.	J. M. Fallon, plumbing,	5 12
Sept. 9.	McDormand, Warner, & Co., ladders,	17 90
Aug. 14.	Fiske, Coleman, & Co., cement and brick,	15 00
Sept. 12.	Thos. Mayo, repairs on furnace, iron pipe, etc.,	31 95
Sept. 2.	J. L. Fairbanks & Co., book,	25
Sept. 5.	A. S. Parker Weeks, blacksmith work,	74 36
Sept. 5.	W. P. Whittemore, grain,	64 48
Jan. 28.	J. H. Burt & Co., carpenter,	62 09
Aug. 1.	Geo. C. Cook, oil, etc.,	5 75
Oct. 10.	Rockwell & Churchill, printing,	21 81
Oct. 1.	Parker's W. Roxbury express,	3 70
Oct. 1.	J. W. Cox, express,	3 40
Oct. 10.	M. E. Downey, harness goods and repairs,	10 65

*Carried forward,*

\$12,244 17

# DEPARTMENT OF MOUNT HOPE CEMETERY.

7

<i>Brought forward,</i>		\$12,244 17
Oct. 7.	Waldo Bros., cement,	15 00
Oct. 10.	A. S. Parker Weeks, blacksmith work,	32 31
Oct. 15.	W. P. Whittemore, grain,	43 55
Oct. 15.	L. Tobin, carpenter,	22 58
Oct. 1.	Sittig Bros., carpenter,	7 55
Oct. 26.	G. R. Kelly & Co., glass,	8 13
Oct. 24.	Schlegel & Fottler, seeds,	4 50
Oct. 10.	Printing Department,	15 23
Total bills,		<u>\$12,393 02</u>

## PAY-ROLLS.

1891.

For week ending Jan.	7 . . . . .	\$242 75	
" " " "	14 . . . . .	221 25	
" " " "	21 . . . . .	232 75	
" " " "	28 . . . . .	210 25	
" " " Feb.	4 . . . . .	245 88	
			\$1,152 88
" " " "	11 . . . . .	\$227 25	
" " " "	18 . . . . .	239 75	
" " " "	25 . . . . .	233 50	
" " " March	4 . . . . .	243 88	
			944 38
" " " "	11 . . . . .	\$214 25	
" " " "	18 . . . . .	218 75	
" " " "	25 . . . . .	200 38	
" " " April	1 . . . . .	218 75	
			852 13
" " " "	8 . . . . .	\$217 13	
" " " "	15 . . . . .	224 75	
" " " "	22 . . . . .	312 38	
" " " "	29 . . . . .	389 75	
			1,144 01
" " " May	6 . . . . .	\$410 75	
" " " "	13 . . . . .	488 75	
" " " "	20 . . . . .	556 75	
" " " "	27 . . . . .	584 50	
			2,040 75
" " " June	8 . . . . .	\$724 75	
" " " "	10 . . . . .	737 88	
" " " "	17 . . . . .	724 75	
" " " "	24 . . . . .	626 25	
" " " July	1 . . . . .	604 50	
			3,418 13
" " " "	8 . . . . .	\$672 75	
" " " "	15 . . . . .	664 47	
" " " "	22 . . . . .	678 25	
" " " "	29 . . . . .	690 75	
			<u>2,701 12</u>

*Carried forward,*

\$12,253 40



<i>Brought forward,</i>							\$12,253 40
For week ending Aug.	5 .	.	.	.	.	\$665 24	
" " " "	12 .	.	.	.	.	688 00	
" " " "	19 .	.	.	.	.	697 25	
" " " "	26 .	.	.	.	.	673 75	
" " " Sept.	2 .	.	.	.	.	640 00	
							<hr/> 3,364 24
" " " "	9 .	.	.	.	.	\$601 75	
" " " "	16 .	.	.	.	.	677 75	
" " " "	23 .	.	.	.	.	661 75	
" " " "	30 .	.	.	.	.	671 75	
							<hr/> 2,613 00
" " " Oct.	7 .	.	.	.	.	\$676 25	
" " " "	14 .	.	.	.	.	477 00	
" " " "	21 .	.	.	.	.	483 37	
" " " "	28 .	.	.	.	.	473 00	
" " " Nov.	4 .	.	.	.	.	479 37	
							<hr/> 2,588 99
" " " Nov.	11 .	.	.	.	.	\$506 75	
" " " "	18 .	.	.	.	.	332 75	
" " " "	25 .	.	.	.	.	323 00	
" " " Dec.	2 .	.	.	.	.	348 75	
							<hr/> 1,511 25
" " " "	9 .	.	.	.	.	\$248 75	
" " " "	16 .	.	.	.	.	251 75	
" " " "	23 .	.	.	.	.	309 25	
" " " "	30 .	.	.	.	.	320 25	
							<hr/> 1,130 00
" " " Jan.	6, 1892	.	.	.	.	\$252 00	
" " " "	13 .	.	.	.	.	250 25	
" " " "	20 .	.	.	.	.	248 25	
" " " "	27 .	.	.	.	.	252 25	
" " " Feb.	3 .	.	.	.	.	267 75	
							<hr/> 1,270 50
Total amount of pay-rolls . . . . .							\$24,731 38
Total amount of bills . . . . .							12,393 02
							<hr/> \$37,124 40
Receipts . . . . .							\$38,281 04
Expenditures . . . . .							37,124 40
							<hr/> Balance on hand Jan. 31, 1892 . . . . .
							<u>\$1,156 64</u>

Respectfully submitted,

LEFORREST A. HALL,  
*Chairman.*

JOHN TAYLOR,  
AUGUSTINE H. READ,  
EDWD. N. CAPEN,  
SALEM D. CHARLES,

*Trustees.*



ANNUAL REPORT  
OF THE  
DEPARTMENT OF PARKS,  
FOR THE YEAR 1891.

HON. NATHAN MATTHEWS, JR.,  
*Mayor of the City of Boston:*

SIR: In accordance with an order of the City Council approved by the Mayor Dec. 5, 1891, "that every officer and board in charge of a department make and transmit to the Mayor immediately after the thirty-first day of January, 1892, the next annual report of the department, and include in the report a statement of the acts and doings and receipts and expenditures of the department from and including the first day of January, 1891, to and including the thirty-first day of January, 1892," the undersigned submit the following report:

FINANCIAL STATEMENTS.

I.

*Receipts and Expenditures of the Department for the Thirteen Months ending Jan. 31, 1892.*

THE PARKWAY.

LAND ACCOUNT.

BACK BAY FENS.

Amount transferred from loan for Public Park Lands . . . \$21,874 25

*Expenditures.*

Amount paid for land . . . . . \$21,374 25

## MUDDY RIVER.

Balance unexpended Dec. 31, 1890 . . . . . \$4,920 96  
 Amount transferred from loan for Public Park  
 Lands . . . . . 112,882 62  
\$117,803 58

*Expenditures.*

Amount paid for land . . . . . \$113,072 29  
 Balance unexpended Jan. 31, 1892 . . . . . 4,731 29  
\$117,803 58

## JAMAICA POND.

Amount transferred from loan for Public Park Lands . . . \$55,269 79

*Expenditures.*

Amount paid for land . . . . . \$55,269 79

## OLD HARBOR.

Amount transferred from loan for Public Park Lands . . . \$42,994 52

*Expenditures.*

Amount paid for land . . . . . \$42,217 12  
 Amount paid for surveying and appraising lands . . . . . 777 40  
\$42,994 52

## CONSTRUCTION AND MAINTENANCE.

Amount transferred from loan for Public Park  
 Construction . . . . . \$345,676 20  
 Amount transferred from appropriation for Main-  
 tenance . . . . . 17,628 65  
\$363,304 85

## EXPENDITURES FOR CONSTRUCTION.

## BACK BAY FENS.

*Filling.*

Amount paid under contract  
 for filling . . . . . \$54,707 55  
 Advertising . . . . . 30 76  
\$54,738 31

*Excavating, Grading, Loam.*

Grading: labor and materials, \$22,230 8  
 Dredging: labor and mate-  
 rials . . . . . 10,839  
 Superintendence and general  
 work . . . . .  
 Loam: labor and material . . . . .  
 Engineering expenses . . . . .

*Amount carried forward*

# PARK DEPARTMENT.

3

*Amount brought forward,* \$105,002 53

## *Roadways, Sidewalks, Gutters, and Drainage.*

Roadways: labor and materials . . . . .	\$23,707 99
Gutters: labor and materials, . . . . .	7,859 22
Curbs and walks: labor and materials . . . . .	5,803 25
Drainage: labor and materials . . . . .	2,005 04
	<hr/> 39,375 50

## *Stony-brook Bridge.*

Amount paid under contract, \$28,042 35 . . . . .	
Plans and superintendence . . . . .	928 55
Labor . . . . .	830 20
Advertising . . . . .	95 86
	<hr/> 29,896 96

## *Fen Bridge.*

Amount paid under contract, \$20,490 00 . . . . .	
Labor and materials . . . . .	6,913 25
Printing . . . . .	35 16
	<hr/> 27,438 41

## *Retaining-wall and Culvert.*

Amount paid under contract, \$8,042 00 . . . . .	
Labor and materials . . . . .	198 30
Advertising . . . . .	35 00
	<hr/> 8,275 30

## *Plantations.*

Labor and expenses . . . . .	4,381 98
------------------------------	----------

## *Commonwealth Avenue.*

Labor, regrading mounds . . . . .	4,216 62
-----------------------------------	----------

## *Agassiz Bridge.*

Labor and materials . . . . .	3,619 55
-------------------------------	----------

## *Plans and Designs.*

F. L. Olmsted & Co., landscape architects, and expenses . . . . .	\$916 62
A. H. French, surveying . . . . .	52 00
	<hr/> 968 62

## *Supply.*

\$225,465 71

<i>Amounts brought forward,</i>	\$114,304 78	\$223,465 71
Bulkhead: labor and materials . . . . .	1,882 79	
Loam, amount paid under contract . . \$1,750 17		
Loam . . . . . 21 00		
	1,771 17	
Grading: labor and materials, . . . . .	1,340 86	
Sewers: amount paid for rebuilding sewers . . . . .	756 35	
Superintendence and general work . . . . .	187 50	
Borings: labor and materials, . . . . .	140 50	
Grading: advertising . . . . .	74 25	
	<u>          </u>	\$120,458 20

*Plans and Designs.*

F. L. Olmsted & Co., landscape architects, and expenses . . . . .	\$1,068 34	
A. H. French, surveying . . . . .	529 58	
	<u>          </u>	1,597 02

*Filling.*

Advertising . . . . .	154 37	
	<u>          </u>	122,210 49
		<u>          </u>
		345,676 20

## EXPENDITURES FOR MAINTENANCE.

*Care of Grounds and Buildings.*

Watchmen: labor and expenses . . . . .	\$13,262 93	
Repairs of covered channel Stony Brook and Gatehouse . . . . .	24 76	
Repairs of covered channel Muddy River and Gatehouse . . . . .	3 44	
Signs and notices . . . . .	3 00	
	<u>          </u>	\$13,294 13

*Park Police.*

Pay of Park Keepers . . . . .	\$4,049 75	
Pay of Sub-Keepers . . . . .	236 44	
Police equipments and supplies . . . . .	48 33	
	<u>          </u>	4,334 52
	<u>          </u>	17,628 65
		<u>          </u>
		<u>\$363,304 85</u>

## ARNOLD ARBORETUM.

## CONSTRUCTION AND MAINTENANCE.

Amount transferred from loan for Public Park Construction . . . . .	\$33,980 29	
Amount transferred from appropriation for Maintenance . . . . .	4,837 67	
	<u>          </u>	\$38,817 96

# PARK DEPARTMENT.

5

## EXPENDITURES FOR CONSTRUCTION.

### *Roads and Walks.*

Amount paid under contract for grading,	\$21,612 25	
Expenses of construction, labor, etc. . . . .	7,949 17	
Engineers and expenses . . . . .	2,237 13	
Materials of construction, freight, etc. . . . .	974 34	
Drainage . . . . .	964 11	
Fuel, supplies, carting, etc. . . . .	62 09	
	<hr/>	\$33,799 09

### *Plans and Designs.*

Landscape architects and expenses . . . . .	149 70	
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### *Plantations.*

Plants . . . . .	81 50	
	<hr/>	33,980 29

## EXPENDITURES FOR MAINTENANCE.

### *Park Police.*

Pay of Park Keepers . . . . .	\$2,804 21	
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### *Care of Grounds and Buildings.*

Watchmen, labor, and expenses . . . . .	2,033 46	
	<hr/>	4,837 67
		<hr/>
		\$38,817 96

## FRANKLIN PARK.

### CONSTRUCTION AND MAINTENANCE.

Amount transferred from loan for Public Park Construction . . . . .	\$189,458 61	
Amount transferred from appropriation for Maintenance . . . . .	29,130 82	
	<hr/>	\$218,584 43

## EXPENDITURES FOR CONSTRUCTION.

### *Roads and Walks.*

Grading roads and walks . . . . .	\$41,636 00	
Surfacing roads and walks . . . . .	39,827 24	
Paving-blocks . . . . .	3,486 34	
Granite steps . . . . .	2,187 00	
Paving . . . . .	303 30	
Curbs and gutters . . . . .	73 90	
	<hr/>	\$87,513 78

### *Clearing and Grading Grounds, Drainage, and General Work.*

Grading grounds . . . . .	\$26,885 52	
Engineers and expenses . . . . .	8,403 43	
Superintendence and general work . . . . .	7,481 91	
Drainage . . . . .	5,997 45	
Clearing grounds . . . . .	4,869 21	
Damages, for injury to laborers . . . . .	585 00	
	<hr/>	53,722 52

Amount carried forward,	\$141,236 30	
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<i>Amount brought forward,</i>	\$141,236 80
<i>Plantations.</i>	
Labor and expenses . . . .	15,722 20
<i>Scarboro' Pond.</i>	
Labor and materials . . . .	9,382 16
<i>Arbor, Schoolmaster Hill.</i>	
Labor and materials . . . .	8,495 77
<i>Park Walls and Gateways.</i>	
Materials, labor, and expenses . .	6,976 80
<i>Ellicottdale.</i>	
Labor and materials . . . .	2,119 87
<i>Plans and Designs.</i>	
Landscape architects and expenses' .	2,033 89
<i>Culverts.</i>	
Materials, labor, and expenses . .	1,519 19
<i>Structures.</i>	
Shelter at Carriage Stand, labor and materials . . .	\$1,210 23
The Shelter at Overlook, labor and materials . . .	1 20
	— 1,211 43
<i>Machinery, Tools, and Implements.</i>	
Sprinkler . . . . .	736 00
<i>Live Stock.</i>	
Peafowl . . . . .	20 00
	— \$189,453 61

## EXPENDITURES FOR MAINTENANCE.

<i>Care of Grounds and Buildings.</i>	
Labor and expenses . . .	\$16,054 19
Signs and notices . . .	125 75
	— \$16,179 94
<i>Park Police.</i>	
Pay of Park Keepers . .	\$11,226 57
Pay of Sub-Keepers . .	1,187 19
Equipments and supplies .	537 12
	— 12,950 88
	29,130 82
	— <u>\$218,584 43</u>

## CHARLESBANK.

## LAND ACCOUNT.

Amount transferred from sale of city property . .	\$2,869 02
Amount transferred from loan for Public Park Lands, .	161 52
	— <u>\$3,030 54</u>

# PARK DEPARTMENT.

7

## Expenditures.

Amount paid for land damages to West Boston Bridge Commissioners . . . . .	<u>\$8,030 54</u>
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## CONSTRUCTION AND MAINTENANCE.

Amount transferred from loan for Public Park Construction . . . . .	\$19,621 43
Amount transferred from appropriation for Maintenance . . . . .	12,524 08
	<u>\$32,145 51</u>

## EXPENDITURES FOR CONSTRUCTION.

### Structures.

Amount paid under contract for Women's Lavatory Building . . . . .	\$6,892 70
Labor, expense, and furnishing . . . . .	1,001 49
Shelter, children's playground, . . . . .	860 00
	<u>\$8,754 19</u>

### Walks and Drainage.

Sidewalk, amount paid under contract . . . . .	\$4,822 10
Labor . . . . .	405 40
Advertising . . . . .	112 73
Curbs . . . . .	66 51
Drainage . . . . .	52 20
	<u>5,458 94</u>

### Gymnasium Grounds, Grading, Loam, and General Work.

Women's gymnastic apparatus . . . . .	\$328 67
Men's gymnasium grounds:	
Electric-light posts . . . . .	585 90
General work . . . . .	430 87
Women's gymnasium grounds:	
Labor and expenses . . . . .	414 62
Engineering expenses . . . . .	267 58
Fence . . . . .	193 23
Loam . . . . .	190 00
Grading, labor . . . . .	57 00
	<u>3,067 87</u>

### Plantations.

Labor . . . . .	2,155 35
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### Plans and Designs.

Plans for Lavatory Building for Women . . . . .	\$175 13
Landscape architects and expenses . . . . .	9 95
	<u>185 08</u>
	<u>\$19,621 43</u>

## EXPENDITURES FOR MAINTENANCE.

### Care of Grounds and Buildings.

Labor and expenses . . . . .	\$8,586 92
Signs and notices . . . . .	7 50
	<u>\$8,594 42</u>
Amounts carried forward,	<u>\$8,594 42</u> <u>\$19,621 43</u>



<i>Amounts brought forward,</i>	\$8,594 42	\$19,621 43	
<i>Park Police.</i>			
Pay of Park Keepers . . .	\$3,766 56		
Pay of Sub-Keepers . . .	125 20		
Police equipments and supplies . . . . .	37 90		
	<u>8,929 66</u>	12,524 08	
			<u>\$32,145 51</u>

## MARINE PARK.

## CONSTRUCTION AND MAINTENANCE.

Amount transferred from loan for Public Park Construction . . . . .	\$199,652 81	
Amount transferred from appropriation for Maintenance . . . . .	5,144 37	
		<u>\$204,797 18</u>

## EXPENDITURES FOR CONSTRUCTION.

*Filling, Grading, Loam, and General Work.*

Amount paid under contracts with Jos. E. White, and Perkins & White, for filling . . .	\$166,821 28	
Amount paid under contract for loam . . . . .	4,253 40	
Grading, labor, and materials . . . . .	513 93	
General work, labor, and materials . . . . .	239 50	
Advertising loam contract, . . . . .	37 50	
	<u>\$171,865 61</u>	

*Structures.*

Amount paid W. L. Miller under contract for temporary bridge . . . . .	\$16,478 51	
Amount paid under contract with Perkins & White, for bulkhead . . . . .	4,985 00	
Inspection and engineering expenses . . . . .	4,044 39	
Amount paid under contract with Shailer & Schniglaue, for iron pier . . . . .	885 00	
Pier-head, labor and materials . . . . .	384 60	
Refectory building . . . . .	308 13	
Iron pier labor and materials, . . . . .	52 47	
Printing bridge contract . . . . .	28 61	
Advertising bridge contract . . . . .	27 13	
Advertising bulkhead contract . . . . .	11 00	
	<u>27,204 84</u>	

*Settees.*

Settees and freight . . . . .	482 00	
<i>Amount carried forward,</i>	<u>\$199,552 45</u>	

# PARK DEPARTMENT.

9

<i>Amount brought forward,</i>	\$199,552 45	
<i>Plans and Designs.</i>		
Landscape architects and expenses	100 86	
	<hr/>	\$199,652 81

## EXPENDITURES FOR MAINTENANCE.

### *Care of Grounds and Buildings.*

Watchmen, labor, and expenses	\$2,957 38
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### *Park Police.*

Pay of Park Keepers	\$2,174 24	
Police equipment and supplies	12 75	
	<hr/>	2,186 99
		<hr/>
		5,144 37
		<hr/>
		\$204,797 18

## WOOD ISLAND PARK.

### LAND ACCOUNT.

Amount transferred from appropriation for Public Park Lands,	<u>\$82,800 00</u>
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### *Expenditures.*

Amount paid for land in 1891	<u>\$82,800 00</u>
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## CONSTRUCTION AND MAINTENANCE.

Amount transferred from loan for Public Park Construction	\$3,588 21	
Amount transferred from appropriation for Maintenance	9 25	
	<hr/>	\$3,592 46

## EXPENDITURES FOR CONSTRUCTION.

### *Grading, Loam, and General Work.*

Grading: labor and materials,	\$1,769 19
Engineering expenses	150 66
Advertising grading contract,	12 38
Superintendence and general work.	9 00
	<hr/>
	\$1,941 23

### *Plantations.*

Labor and expenses	1,559 19
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### *Plans and Designs.*

Landscape architects and expenses	82 79	
	<hr/>	\$3,583 21

## EXPENDITURES FOR MAINTENANCE.

### *Care of Grounds and Buildings.*

Labor	\$5 75	
Signs and notices	3 50	
	<hr/>	
		9 25
		<hr/>
		\$3,592 46

## CHARLESTOWN HEIGHTS.

## LAND ACCOUNT.

Amount transferred from appropriation for Public Park, Charlestown . . . . . \$50,538 02

*Expenditures.*

Amount paid for land in 1891 . . . . . \$50,538 02

## CONSTRUCTION AND MAINTENANCE.

Amount transferred from loan for Public Park Construction . . . \$9,218 87

## EXPENDITURES FOR CONSTRUCTION.

*Grading, Loam, and General Work.*

Grading, labor, and materials . . . \$8,123 81  
 Engineers and expenses . . . 699 96  
 Fence . . . . . 5 04  
 General work . . . . . 4 79  
 ————— \$8,833 60

*Plans and Designs.*

Plans for Lavatory building . . . \$300 00  
 Landscape architects and expenses . . . 80 47  
 ————— 380 47

*Plantations.*

Seeds . . . . . 4 80  
 ————— \$9,218 87

## CHARLESTOWN PLAYGROUND.

## LAND ACCOUNT.

Amount transferred from appropriation for Public Park, Charlestown . . . . . \$47,800 02

Amount transferred from appropriation for Public Park Lands . . . . . 93 00

\$47,893 02

*Expenditures.*

Amount paid for land in 1891 . . . . . \$47,800 02  
 Amount paid for surveying . . . . . 93 00  
 ————— \$47,893 02

## CONSTRUCTION AND MAINTENANCE.

Amount transferred from loan for Public Park Construction . . . . . \$506 80

Amount transferred from appropriation for Maintenance . . . . . 192 50

\$699 30

## EXPENDITURES FOR CONSTRUCTION.

*Grading, Loam, and General Work.*

Grading, labor, and materials . . . \$464 61  
 General work . . . . . 41 14  
 Engineering expenses . . . . . 1 05  
 ————— \$506 80

## EXPENDITURES FOR MAINTENANCE.

*Park Police.*

Pay of Park Keepers . . . . . 192 50  
 ————— \$699 30

## PUBLIC PARKS, DORCHESTER.

## LAND ACCOUNT.

Amount transferred from appropriation for Public Park Lands . . . . .	\$1,215 98
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*Expenditures.*

Amount paid for surveying . . . . .	\$1,215 98
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## DEPARTMENT APPROPRIATION.

Amount transferred from appropriation for Maintenance . .	\$7,652 84
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## GENERAL ACCOUNT.

*Expenditures.*

Salary of Secretary and Clerk . . . . .	\$3,000 00
Clerical service at office . . . . .	1,800 00
Printing annual report, etc. . . . .	940 98
Office furniture and fixtures . . . . .	438 50
Telephone and messenger service and incidental expenses . . . . .	425 82
Surveying Muddy River lands . . . . .	419 24
Clerical service at Assessors' office . . . . .	257 00
Maps . . . . .	115 00
Advertising . . . . .	96 70
Stationery . . . . .	68 92
Coach-hire . . . . .	56 00
Plans and designs . . . . .	34 18
	<u>\$7,652 84</u>

## APPROPRIATION FOR MAINTENANCE.

Balance unexpended Dec. 31, 1890 . . . . .	\$12,708 25
Appropriation for the financial year 1891-92 . . . . .	60,000 00
Amount transferred from Income Account . . . . .	4,411 43
	<u>\$77,119 68</u>

*Expenditures.*

Paid on account of Franklin Park . . . . .	\$29,130 82
Paid on account of Parkway . . . . .	17,628 65
Paid on account of Charlesbank . . . . .	12,524 08
Paid on account of Park Department . . . . .	7,652 84
Paid on account of Marine Park . . . . .	5,144 37
Paid on account of Arnold Arboretum . . . . .	4,837 67
Paid on account of Charlestown Playground . . . . .	192 50
Paid on account of Wood Island Park . . . . .	9 25
	<u>\$77,119 68</u>

## INCOME.

*Receipts.*

Balance remaining Dec. 31, 1890 . . . . .	\$5,565 24
Received from premium on loans . . . . .	28,242 50
Received from rents and sale of buildings, grass, wood . . . . .	14,904 89
	<u>\$48,712 63</u>

*Payments.*

Premium on loans paid into Public Park Sinking Fund . . . . .	\$28,242 50	
Income carried to General City Income . . . . .	14,904 89	
Transferred to Park Maintenance . . . . .	4,411 43	
Balance remaining Jan. 31, 1892 . . . . .	1,158 81	
		<u>\$48,712 63</u>

## PUBLIC PARK LANDS.

*(Previously acquired.)*

Balance unexpended Dec. 31, 1890 . . . . .	\$161 52
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*Expenditures.*

Paid on account of Charlesbank . . . . .	\$161 52
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## PUBLIC PARK LANDS.

Balance unexpended Dec. 31, 1890 . . . . .	\$500,640 31
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*Expenditures.*

Paid on account of Parkway, Muddy River . . . . .	\$112,882 62
Paid on account of Wood Island Park . . . . .	82,800 00
Paid on account of Parkway, Jamaica Pond . . . . .	55,269 79
Paid on account of Parkway, Old Harbor . . . . .	42,994 52
Paid on account of Parkway, Back Bay Fens . . . . .	21,374 25
Paid on account of Public Parks in Dorchester . . . . .	1,215 98
Paid on account of Charlestown Playground . . . . .	93 00
Balance unexpended Jan. 31, 1892 . . . . .	184,010 15
	<u>\$500,640 31</u>

## PUBLIC PARK, CHARLESTOWN.

Public Park Loan issued Nov. 1, 1890 . . . . .	\$200,000 00
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*Expenditures.*

Paid on account of Charlestown Heights . . . . .	\$50,538 02
Paid on account of Charlestown Playground . . . . .	47,800 02
Balance unexpended Jan. 31, 1892 . . . . .	101,661 96
	<u>\$200,000 00</u>

## PUBLIC PARK CONSTRUCTION.

Balance unexpended Dec. 31, 1890 . . . . .	\$37,158 04
Public Park Construction Loan, issued in 1891 . . . . .	500,000 00
Public Park Loan issued in 1891 . . . . .	700,000 00
	<u>\$1,237,158 04</u>

*Expenditures.*

Paid on account of Parkway . . . . .	\$345,676 20
Paid on account of Marine Park . . . . .	199,652 81
Paid on account of Franklin Park . . . . .	189,453 61
Paid on account of Arnold Arboretum . . . . .	33,980 29
Paid on account of Charlesbank . . . . .	19,621 43
Paid on account of Charlestown Heights . . . . .	9,218 87
Paid on account of Wood Island Park . . . . .	3,583 21
Paid on account of Charlestown Playground . . . . .	506 80
Balance unexpended Jan. 31, 1892 . . . . .	435,464 82
	<u>\$1,237,158 04</u>

## II.

*Summary of Receipts and Expenditures on account of Parkway Construction from July 23, 1877, to Jan. 31, 1892.*

## PARKWAY CONSTRUCTION.

## BACK BAY FENS.

*Receipts.*

From appropriations for Back Bay Fens . . . . .	\$1,082,179 89
From loan for Public Park Construction . . . . .	727,264 47
From appropriations for Park Department . . . . .	22,868 85
From Income Account . . . . .	3,449 41
	<hr/> \$1,835,762 12

*Expenditures.*

Filling . . . . .	\$548,951 20
Excavating, grading, loam, and general work . . . . .	496,828 64
Roadways, sidewalks, gutters, and drainage . . . . .	250,663 19
Retaining-walls, curb, and fence . . . . .	115,560 01
Boylston bridge . . . . .	92,011 43
Charlesgate bridge . . . . .	56,675 79
Plantations . . . . .	56,272 61
Agassiz bridge . . . . .	52,013 50
Railroad bridge . . . . .	39,995 04
Stony Brook bridge . . . . .	29,896 96
Fen bridge . . . . .	27,486 99
Plans and designs . . . . .	25,712 27
Office and general expenses . . . . .	14,114 92
Machinery, tools, etc. . . . .	13,797 11
Commonwealth Avenue mounds . . . . .	7,512 89
Surveying . . . . .	5,472 16
Stony Brook channel and Gate-house . . . . .	1,976 28
Water supply, settees, and live-stock . . . . .	821 13
	<hr/> \$1,835,762 12

## RIVERWAY AND JAMAICAWAY.

*Receipts.*

From loan for Public Park Construction . . . . .	\$124,916 67
From appropriations for Muddy River Improvement . . . . .	4,000 00
	<hr/> \$128,916 67

*Expenditures.*

Excavating, grading, loam, and general work . . . . .	\$122,795 37
Surveys, plans, and designs . . . . .	5,908 63
Filling . . . . .	154 37
Gate-house . . . . .	58 30
	<hr/> \$128,916 67

## III.

*Receipts and Disbursements of the Department from the Organization of the Board, Oct. 8, 1875, to Jan. 31, 1892.*

## PUBLIC PARK LANDS, CONSTRUCTION AND MAINTENANCE.

## RECEIPTS.

Public Park Loan for lands, less balances merged . . . . .	\$3,683,791 73
Public Park Construction Loan . . . . .	2,500,000 00
Appropriations, less transfers, merged balances, and betterment expenses . . . . .	1,788,917 46
Public Park Loan . . . . .	700,000 00
Income appropriated to maintenance . . . . .	66,808 78
From Town of Brookline, for land . . . . .	20,000 00
From Miscellaneous Loan, and transfer from sale of city property, for land . . . . .	16,869 02
	<hr/>
	\$8,726,886 99

## DISBURSEMENTS.

*Land.*

Franklin Park . . . . .	\$1,474,296 64
The Parkway . . . . .	1,048,691 43
Charlesbank . . . . .	373,916 99
Marine Park . . . . .	232,972 57
Wood Island Park . . . . .	182,800 00
Arnold Arboretum . . . . .	83,932 71
Charlestown Heights . . . . .	50,538 02
Charlestown Playground . . . . .	47,893 02
Public Parks, Dorchester . . . . .	1,215 98
	<hr/>
	\$3,446,257 35

*Construction.*

The Parkway . . . . .	\$1,964,678 79
Franklin Park . . . . .	1,087,421 39
Marine Park . . . . .	625,043 81
Charlesbank . . . . .	278,966 81
Arnold Arboretum . . . . .	153,321 50
Wood Island Park . . . . .	102,581 93
General Account . . . . .	67,205 98
Park Nursery . . . . .	29,947 07
Charlestown Heights . . . . .	9,218 87
Charlestown Playground . . . . .	506 80
	<hr/>
	4,318,892 95

*Maintenance.*

Franklin Park . . . . .	\$104,864 85
The Parkway . . . . .	50,795 38
Charlesbank . . . . .	34,375 93
Marine Park . . . . .	22,729 54
Arnold Arboretum . . . . .	21,604 58
Charlestown Playground . . . . .	192 50
Wood Island Park . . . . .	61 88
	<hr/>
	234,214 66
Balance unexpended Jan. 31, 1892 . . . . .	727,022 03

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\$8,726,886 99

## PUBLIC PARK DEBT AND SINKING FUND.

*Receipts.*

Appropriations for interest on debt . . .	\$1,222,661 58
Appropriations for Sinking Fund . . .	527,110 00
Received from betterments, less refunded . . .	307,760 62
Income paid into Sinking Fund . . .	206,135 36
Interest on bank deposits and investments . . .	204,658 25
Income applied to the payment of debt . . .	94,000 00
From Park appropriations for betterment ex- penses . . .	9,677 62
From Reserved Fund for repayment of better- ments . . .	241 16
Unexpended balances of loans for Park lands paid into Sinking Fund . . .	180 84
	<hr/> <b>\$2,572,425 43</b> <hr/>

*Disbursements.*

Interest on Public Park debt . . .	\$1,222,661 58
Public Park Sinking Fund . . .	787,951 20
Debt paid by Sinking Fund . . .	450,000 00
Debt cancelled by revenue and betterments . . .	99,000 00
Betterment expenses . . .	9,677 62
Betterments held under protest . . .	2,893 87
Betterments repaid from Reserved Fund . . .	241 16
	<hr/> <b>\$2,572,425 43</b> <hr/>

## DEBT STATEMENT.

*The Public Park Debt, Jan. 31, 1892, to be paid as it be-  
comes due from the Resources of the Public Park Sinking  
Fund.*

Public Park, Charlestown, 4% Loan, due Oct. 1, 1900 . . .	\$200,000 00
Franklin Park, 4% Loan, due Jan. 1, 1913 . . .	233,000 00
Arnold Arboretum, 4% Loan, due Jan. 1, 1913 . . .	60,000 00
Wood Island Park, 4% Loan, due Jan. 1, 1913 . . .	50,000 00
Franklin Park, 4% Loan, due April 1, 1913 . . .	300,000 00
Charlesbank, 4% Loan, due April 1, 1913 . . .	285,000 00
Marine Park, 4% Loan, due April 1, 1913 . . .	209,000 00
Muddy River Improvement, 4% Loan, due April 1, 1913 . . .	119,000 00
Franklin Park, 4% Loan, due Jan. 1, 1914 . . .	500,000 00
Muddy River Improvement, 4% Loan, due April 1, 1914 . . .	75,000 00
Charlesbank, 3½% Loan, due Oct. 1, 1915 . . .	16,000 00
Marine Park, 3½% Loan, due Oct. 1, 1915 . . .	13,000 00
Arnold Arboretum, 3½% Loan, due April 1, 1916 . . .	20,000 00
Charlesbank, 3½% Loan, due Oct. 1, 1916 . . .	55,000 00
Public Park Lands, 3½% Loan, due July 1, 1917 . . .	400,000 00
Public Park Construction, 4% Loan, due Jan. 1, 1918 . . .	450,000 00
Public Park Construction, 4% Loan, due April 1, 1918 . . .	5,000 00
Public Park Construction, 4% Loan, due July 1, 1918 . . .	5,000 00

*Amount carried forward,*

**\$2,995,000 00**



<i>Amount brought forward,</i>	\$2,995,000 00
Public Park Construction, 4% Loans, due Oct. 1, 1918	40,000 00
Public Park Construction, 4% Loan, due Jan. 1, 1919	480,500 00
Public Park Construction, 4% Loan, due April 1, 1919	16,000 00
Public Park Construction, 4% Loan, due July 1, 1919	8,500 00
Public Park Lands, 3½% Loan, due Jan. 1, 1920	600,000 00
Public Park Construction, 4% Loan, due Jan. 1, 1920	439,500 00
Public Park Construction, 4% Loan, due July 1, 1920	16,400 00
Public Park Construction, 4% Loan, due Oct. 1, 1920	44,100 00
Public Park Construction, 4% Loan, due June 1, 1921	500,000 00
Public Park, 4% Loan, due June 1, 1921	700,000 00
Public Park Construction, 3½% Loan, due Jan. 1, 1937	500,000 00
<b>Total Debt</b>	<b>\$6,835,000 00</b>
Less the means in the Sinking Fund, and in hands of City Treasurer for paying the same, Jan. 31, 1892	790,845 07
<b>Debt, less means for paying</b>	<b><u>\$5,544,154 98</u></b>

## SINKING FUND STATEMENT.

*Resources of the Public Park Sinking Fund, Jan. 31, 1892, in hands of Sinking Fund Commissioners; being Bonds of the City of Boston and Cash, with the Dates when the Bonds become due.*

New Library Building, 3½% Loan, due July 1, 1899	\$150,000 00
Franklin Park, 4% Loan, due Jan. 1, 1913	100,000 00
Arnold Arboretum, 4% Loan, due Jan. 1, 1913	60,000 00
Wood Island Park, 4% Loan, due Jan. 1, 1913	50,000 00
Muddy River Improvement, 4% Loan, due April 1, 1913	19,000 00
Cochituate Water, 4% Loan, due April 1, 1917	25,000 00
Cochituate Water, 3% Loan, due April 1, 1917	25,000 00
Public Park Construction, 4% Loan, due Oct. 1, 1918	28,500 00
Public Park Construction, 4% Loan, due Oct. 1, 1920	27,100 00
<b>Total investments</b>	<b>\$479,600 00</b>
<b>Cash</b>	<b>808,351 20</b>
<b>Total resources</b>	<b><u>\$787,951 20</u></b>

## PARK CONSTRUCTION.

A summary of the work done on the public parks from Jan. 1, 1891, to Jan. 31, 1892, is given below, the details of which will be found in the City Engineer's report in the appendix.

*The Parkway.* — The stone-crusher and temporary buildings have been removed from the junction of Agassiz Road and the Fenway to the Tremont Entrance, and the grounds formerly occupied by them have been finished and prepared for planting. The plantations along the Fenway between Huntington and Tremont Entrances have been completed, the ride surfaced, and the walk along the Fenside has been subgraded and partially covered with stone and provided with concrete gutters.

The parapet walls of Agassiz Bridge have been built, the roadway and walks over the bridge resurfaced, the curbstones reset and gutters repaved.

Tremont Entrance has been filled with gravel and a portion of the plantations covered with loam.

The excavation of the waterway at the Longwood Entrance has been completed, the slopes have been graded and covered with loam except in the immediate vicinity of the wall at Brookline Avenue. Audubon Road has been completed to Brookline Avenue. The filling and grading of the driveway and ride on the southerly side of the Longwood Entrance has been substantially completed, the work having been delayed by the construction of the Metropolitan sewer, through this part of the Fens.

Fen Bridge has been completed.

The work of extending the culvert under Brookline Avenue and building a retaining wall in connection with it was suspended for a time, as notice was received from the Board of Survey of their intention to widen Brookline Avenue on the southerly side. The new lines having been determined on, work was resumed and is now completed, excepting the rustic face of the wall, which will be built by the Park force.

Work is in progress on the building of the Stony Brook Bridge, and it will probably be completed in a few weeks.

The stone-crusher has been set up at the Tremont Entrance, and stone is being crushed for the surfacing of the roads and walks.

The regrading of the plantations in Commonwealth Avenue has been finished, and the part between Charlesgate East and West Chester Park has been planted.

At the beginning of the year work was in progress along Muddy River under four contracts for excavating the water-

way and grading the upland. These contracts covered the whole territory from Audubon Road to the line of Cumberland Avenue extended, with the exception of the Downer-Street section. That part of the Parkway west of Brookline Avenue has been substantially completed as far as it can be with the materials on the ground, while the work under the contract south of Tremont Street is very nearly done.

The buildings have been removed from the Downer-Street section, and the grading has been practically completed.

A new contract covering all of the grading remaining to be done has been made, and work under it is now in progress.

A contract has been made with the B. & A. R.R. Co. for filling the portion of the Parkway west and north of the waterway from Brookline Avenue to St. Mary's Street. Work has been begun under this contract.

*Arnold Arboretum.* — The work of grading the drive around the north side of Bussey Hill and across the meadow to Centre Street opposite Orchard Street, and of the branch from this drive to the Parkway near the corner of South and Morton Streets, has been nearly completed, a part of the drains built, and about 1,700 linear feet of roadway bal-  
lasted.

The drains and catch-basins have been built and the gutters paved on the drive from the main drive to Walter Street.

A brick building, 100 feet long and 40 feet wide, is being erected, near the point where the drive of the Arboretum leaves the Parkway beyond Centre Street, by Harvard College, with the consent of this Board. The lower story of this building is intended to serve as a dendrological museum to be open to the public; the upper story will be used as a library and herbarium, and will contain rooms for the administration of the Arboretum.

*Franklin Park.* — The surfacing of Loop Road has been completed and the walks in the vicinity nearly so.

The Ride through the Wilderness has been completed and 1,500 linear feet of stone for steps for the walks in the Wilderness have been purchased.

The walk from Ellicottdale to the top of Scarboro' Hill has been finished.

The easterly end of the Greeting and the grounds adjoining have been graded, curbstone set, the roadway covered with stone, and drains and catch-basins built. The easterly end of Glen Lane and the wall on the line of Glen Lane have been finished. A large force has been employed on the Circuit Drive around the easterly side of the Park, and most of this drive is sub-graded. A part of the drainage

work has been done, about 1,600 linear feet of gutters paved, and 800 linear feet of road covered with stone.

Ellicottdale has been completed. The masonry work of the shelter and the masonry and wood work of the arbor on Schoolmaster Hill have been finished.

The main drain at the westerly end of the Greeting has been extended so as to drain the swampy ground near by.

Work is now in progress in excavating the proposed ponds south of Scarboro' Hill.

*Marine Park.* — The filling is still in progress, there having been deposited since Jan. 1, 1891, 311,450 cubic yards.

A bulkhead has been built on the easterly line of Q Street, north of E. First Street, for retaining the filling being done on the Park.

A temporary bridge to Castle Island is being built under contract to be finished on or before June 1.

Loam is now being furnished under contract for that portion of the Park already filled.

*Wood Island Park.* — The grounds prepared last season have been planted. A revision of the plan, required by the extension of the Park to include West Wood Island, and our failure to get what we thought to be a reasonable bid for the filling, delayed our work here during the last season.

*Charlesbank.* — The Women's Lavatory Building has been finished, and the Gymnastic Ground has been provided with apparatus.

A shelter has been erected on the Girls' Playground.

At the Men's Gymnasium thirteen electric lights have been established so that the grounds can be used after dark. The walk adjoining Charles Street has been paved with brick.

*Charlestown Parks.* — The grading of the grounds at Charlestown Heights was begun in August and is still in progress.

The filling of the Playground on Alford Street, with material from the Street Department, and other sources, is being done without expense to this department. The buildings formerly on the Guild estate have been removed.

#### PARK APPROPRIATIONS AND CONTRACTS.

The appropriation of \$2,500,000 authorized by Chapter 304 of the Acts of 1886 for the construction of the Public Parks having been expended, or engaged in contracts, at the beginning of the year 1891, except about \$100,000, the Board recommended that an application be made to the Legislature for authority to borrow a further sum of \$2,500,000 for construction.

The Board having also made complete takings for the sections of the Parkway between the Back Bay Fens and Perkins Street, at Jamaica Pond, and between Atlantic Street near Burnham's Wharf, South Boston, and the Marine Park, payments for which would require nearly, if not quite, all the special loan of \$600,000 authorized by the Legislature of 1888 for the acquisition of lands, the Board also recommended that authority be obtained to borrow \$1,000,000, for acquiring land, having especially in view the land necessary for the continuation of the Parkways.

These recommendations being approved by the Mayor and City Council, were favorably acted upon by the Legislature by Chapter 301 of the Acts of 1891, which provided for a loan of \$3,500,000 for said purposes, no greater amount than \$700,000 to be issued in any one year, and no lands to be taken exceeding in value, as assessed for the year 1890, \$1,000,000. This Act is printed in full in the appendix to this report.

The Act was accepted by the City Council, and appropriation of the \$3,500,000 was made in an order approved by the Mayor May 20, 1891, a copy of which is printed in the appendix, and the amount of \$700,000 was subsequently borrowed. This sum, together with the \$537,158.04 of the former loan of \$2,500,000, which remained to be expended in 1891, placed a total of \$1,237,158.04 at the disposal of the Board. Out of this sum of \$1,237,158.04 there has been expended the sum of \$801,693.22, leaving a balance of \$435,464.82. Contracts have been entered into for construction in the various parks upon which there remains work to be done, which will call for \$282,991.69, the details of which are as follows :

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Contractor.	Place.	Nature of Work.	Date of Finishing Specified in Contract.	Amount.	Unperformed.
Perkins & White .	Marine Park .	Filling . . . .	Sept. 10, '91	\$212,000 00	\$74,630 30
Perkins & White .	" "	Loam . . . . .	April 1, '92	16,680 00	12,426 00
Wm. L. Miller . .	" "	Temporary b'ge Castle Island,	June 1, '92	32,300 00	15,821 40
Boston & Albany R.R. . . . .	Back Bay Fens,	Filling . . . .	.....	61,200 00	17,729 30
S. & R. J. Lombard,	" " "	Paving-blocks,	.....	4,930 00	1,126 56
Sampson & Clark .	" " "	Stony Brook Bridge . . .	Nov. 15, '91	37,142 00	9,099 65
Edward F. Brigham,	Muddy River .	Grading . . . .	June 1, '91	12,207 50	1,703 58
H. P. Nawn . . . .	" " "	" . . . .	Aug. 1, '91	83,790 00	13,025 81
Boston & Albany R.R. . . . .	" " "	Filling . . . .	.....	46,750 00	46,750 00
Boston & Albany R.R. . . . .	" " "	Loam . . . . .	.....	17,500 00	17,500 00
Moulton & O'Ma- honey . . . . .	" " "	Grading . . . .	Nov. 1, '92	65,100 00	62,427 77
John Sheehan . . .	" " "	Brookline-ave. Bridge . . .	July 1, '92	7,602 50	7,602 50
James J. Vernon .	Franklin Park,	Curbstones .	Mar. 28, '92	3,067 96	3,067 96
			Totals . .	\$600,358 96	\$282,991 00

## JAMAICAWAY.

Pursuant to the projected plan of including Jamaica Pond in the Park System, the Board during the year purchased two estates on the westerly border of the pond which were in the market.

The first one known as the Chickering place was acquired June 19th for \$25,000, and the taxes for 1891. It is situated at the corner of Prince and Perkins Streets and comprises 156,816 square feet of land with dwelling-houses and stable. It was valued at \$21,200 for taxation in 1891.

The other estate, known as the Frothingham place, was acquired November 18th for \$30,000. It is situated on Perkins Street and comprises 145,000 square feet of land with dwelling-house and stable. It was valued at \$24,500 for taxation in 1891.

These properties are temporarily in charge of caretakers until the buildings are removed and they can be opened to public use.

The Board is negotiating for other estates where the owners are prepared to treat with the city on fair terms, and



surveys of the lands in this vicinity which are considered desirable for park purposes have been made or are in progress, in order that a comprehensive plan for embodying them in the Park System may be projected.

So much of the land as is required to carry the Jamaica-way along the easterly side of the pond, in continuation of the Parkway from the Riverway to Franklin Park, should be acquired as soon as the plans are completed. Surveys and plans for the further continuation of the Parkway from Jamaica Pond to the Arnold Arboretum and thence to Franklin Park have been made. Negotiations for the acquisition of the lands required by purchase are in progress. They should be acquired as soon as the plans are completed. Early acquisition of all the above-mentioned lands is desirable both because they are rising in value and because an early completion of the Parkway from the Back Bay Fens to Franklin Park will do much to bring that Park and the Arboretum into general use, as well as to greatly increase the taxable value of property near to the Parkway.

#### PARKS FOR CHARLESTOWN.

Early in the year the Board advertised for proposals for the sale of lands to the city for park purposes in Charlestown.

Several offers of land were received, two of which were subsequently accepted. One of these being the Guild Tannery property at Charlestown Neck and the other the Dehon estate at Charlestown Heights.

The Guild property, containing about 2 acres, was purchased, and the Tuft's Mill Pond property, containing 12½ acres inside and 3½ acres outside the sea walls, was taken by the Board May 8, 1891. No settlement has yet been made for the latter property.

The proposition for the sale of the Dehon estate was accepted by the Board May 22, 1891, and the lands were subsequently taken and settled for at the price named in the proposal. This estate is in three parcels, adjoining Bunker Hill, Quincy, and Medford Streets, and extends beyond the Boston & Maine Railroad into Mystic River. It contains about 4 acres of land and 6 acres of flats.

Proposed plans for the improvement of both of the locations are herewith presented.

Plans for a pavilion or shelter at Charlestown Heights have been prepared by Messrs. Walker & Kimball from preliminary plans of the landscape architects. The building is intended to be of wood, two stories in height, with a basement to contain heating-apparatus. The first story will contain

OF THE CITY OF

# CHARLESTOWN

SEAL

signed and represent all classes of population, and as I stated



in heating-apparatus. The first story will contain

the public rooms, lavatories, attendant's room, and rooms for the police, foreman, and workmen. The tool-house is to be in a one-story detached addition.

The public rooms are to be entered from the Park side through a covered court, made by the projecting second story, but open at the ends and the side towards the playground. Seats will here be provided under cover, and sand courts for infants will be conveniently placed outside. The second story is to be an open gallery or overlook, and will contain a band stand or balcony for city concerts overlooking the promenade.

#### PARK AT DORCHESTER LOWER MILLS.

June 19, 1891, the Board received the following petition :

*To the Honorable Board of Park Commissioners, City of Boston :*

We, the undersigned, residents of that portion of Boston known as Dorchester Lower Mills, respectfully petition you to take such action as you may deem wise to secure for public purposes the tract of land on Dorchester Avenue and Adams Street, adjoining the Convalescents' Home of the City Hospital. This rapidly growing manufacturing district, remote from parks, urgently needs a playground for youth, a permanent open-air space and park for sanitary reasons, all of which we believe may be secured now to the best advantage.

(Signed)

HENRY D. POPE  
and 269 others.

The petition was accompanied by a letter from the Secretary of the Lower Mills Improvement Association, dated June 12, 1891, setting forth that

At a meeting of the Lower Mills Improvement Association, held on the above date, it was unanimously

*Voted*, That this Society heartily indorse the petition to your Honorable Board now being circulated, praying that you take action in regard to acquiring land in this section for public purposes. Said land adjoins property of the city of Boston on Dorchester Avenue, known as the Convalescents' Home, and lies to the south of the city property.

Communications in aid of the petition were also received from Alderman H. S. Carruth and James S. Green, M.D. In the former letter the Alderman says :

I inclose herewith several petitions from the citizens of the southerly end of Dorchester, especially the Lower Mills Village, and also a copy of the action of the Lower Mills Improvement Association, and a letter from Dr. James S. Green, the most prominent resident physician of the locality. The petitions, as you will observe, are very numerous signed and represent all classes of population, and as I stated to you on

the occasion of my being present at your last meeting, the demand for this open-air space is very urgent. The population of this locality is mostly composed of the employees in the large chocolate and paper mills and other manufactories, and the tendency for the last five years has been to concentrate population in this locality. Unless some action is taken at once it is very doubtful if any suitable place can again be secured.

This particular locality, which I have suggested, namely, the property of the Whitney and Badlam heirs, is not only in every way suitable, being situated in the heart of this village, but it is also in itself a most beautiful natural park with a magnificent growth of trees, none of which are of stump growth, but of first growth, filled with beautiful ledges of rocks, and adjoining property now owned by the City Hospital, and which could be utilized with this for the purposes indicated in the petitions enclosed.

I sincerely trust that your Board will take action on this matter at your meeting to-morrow, as I feel that no action that you could take would do more good or accomplish a greater amount of pleasure and improvement than the establishment of this open-air space, or small park. I do not think there will be any expensive demands for improvements of the property, nothing more than a mere cleaning up of some underbrush and admission to the grounds, and possibly a policeman or two on Sundays. Otherwise the place is in itself a beautiful park. The feeling of the bulk of the population, as expressed to me, is that they desire to have it saved, as the chances are all in favor of its being cut up into house lots within a very short time. If that is done, there is no other location which can be procured for the same price which would be in any degree so well located and naturally so beautiful.

Deeming the reasons set forth in the above petition and communications well founded, the Board caused surveys of the land therein described to be made, and on June 26th took the property named in the petition for a public park, which comprises 26 acres. Some change of the boundaries between this land and the Convalescents' Home may be found advisable.

#### WOOD ISLAND PARK.

As this Park, containing originally  $23\frac{6}{10}$  acres of upland, including 4 acres of Parkway, and  $57\frac{7}{10}$  acres of flats, would require extensive filling to make it available for park purposes, the Board opened negotiations with the East Boston Company with the purpose of adding West Wood Island and the intervening marsh to this location. The company met the overtures of the Commissioners in a liberal manner, and offered the lands at their assessed valuation, and, at this valuation, on June 26th the Board purchased 22 acres of upland and 108 acres of flats for the sum of \$82,300. Subsequently a small area of land belonging to the Maverick Land Company, and included within the proposed lines of the new location, was bought for \$500. The Park and Parkway now contain  $45\frac{6}{10}$  acres of land and  $165\frac{7}{10}$  acres of flats.

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A new plan for laying out the enlarged Park has been prepared by the landscape architects and is herewith printed.

The paths on the 23 $\frac{1}{10}$  acres of upland have been graded, and the ground has been planted with trees.

We contemplate surfacing the paths and the projected playground, so that they will be ready for use before the close of the year.

#### SHORE ROAD — EAST BOSTON TO WINTHROP.

In a resolution of the Board of Aldermen dated Dec. 7, 1891, this Board was requested to investigate the question of constructing a boulevard in connection with the Park System from Jeffries Street to Wood Island Park. In the reply to this request, dated Dec. 30, 1891, upon the report of the City Engineer the Board stated as follows :

It is 3,000 feet from Jeffries Street to Wood Island Park. The depth of the fill we believe would be about 20 feet. A boulevard 80 feet in width would require at least 400,000 cubic yards of filling. This would cost about \$240,000. Riprap for the slope, a sluiceway and gate, surfacing, drainage and planting, and connection with the Park-drive would add about \$150,000 to the cost.

The funds at our command are not more than enough to complete the Parks and Parkways to which the city is already committed, but if it should be thought wise to extend the Parkways we think that the proposed connection of Wood Island Park with Jeffries Street would be an attractive feature and would enhance the value of property in its vicinity, especially if the Parkway should be continued from Wood Island Park to Winthrop Point or farther.

We think it proper to add that the Commonwealth would probably require compensation for the fill and for the confinement of tide-water between the proposed Parkway and the mainlar ' .

In connection with this project, Alderman Sullivan presented to the Board a communication from the Superintendent of the East Boston Company to him under date of Dec. 14, 1891, in which occurs the following :

Herewith you will find my plan of a shore-road or "Boulevard" beginning at the Park or Parkway, and extending along the shore across the dyke at Winthrop Junction to Belle Isle Creek, thence running along the water's edge by the Lowell and Loring estates by the Huckins property, and as much farther as the town of Winthrop desire to build. I am authorized to state that the East Boston Co. and the Boston Land Co. will give the city the right of way with as much land as is necessary to carry out the improvement.

The flooding of the flats lying inside the proposed drive by means of tide-gates until they are gradually filled and built upon would effect a sanitary improvement over the conditions at present existing in East Boston, and the question of the advisability of the plan is chiefly a matter of expense.



### MARINE PARK.

The plan for the extension of the Marine Park on Castle Island, published in the last annual report of the Board, has received the approval of the Secretary of War in the following terms :

In conformity with the provisions of the Joint Resolution of May 1, 1890, this plan and project for the Marine Park and works on Castle Island, in Boston Harbor, is approved.

The work on Castle Island to be executed under the general supervision of the United States officer in charge of said island, and the cut in the solid causeway fifty feet in width in the clear, to be faced with stone-masonry abutments, and to be spanned by a drawbridge to be manoeuvred from, and to be entirely withdrawn to, the Castle Island side of the cut. Said drawbridge to be, and to remain, under the custody and control of the United States, and in all its details to meet the approval of the Secretary of War.

L. A. GRANT,

*Acting Secretary of War.*

WAR DEPARTMENT,  
WASHINGTON, Oct. 13, 1891.

The plans for the temporary bridge to Castle Island, after being amended to provide a draw at the request of the War Department, were also approved December 12, 1891.

### PROPOSED PARKWAY IN DORCHESTER.

On August 3, 1891, Hon. W. H. West, Major Turner, C. F. Baxter, and N. T. Robinson, a committee representing the Dorchester Improvement Union, came before the Board to submit plans for a proposed parkway or main thoroughfare from Franklin Park to Marine Park by way of Mt. Bowdoin, Savin Hill, and the Parkway at Old Harbor.

As this proposed avenue followed in many cases the lines of existing streets which were proposed to be included in the new way, over which existing streets the Park Commissioners could exercise no jurisdiction, and as the Board of Survey appeared to be the proper tribunal to map out and define the limits of such proposed way, the Board recommended that the committee present its plans to the Board of Survey.

Subsequently, on November 19, at their request, the Board gave a further hearing to Messrs. W. B. Bird, W. H. West, C. F. Baxter, and others, on the question of a parkway through Dorchester, from Franklin to Marine Park, either on the lines previously submitted by them, or on some other feasible route.

The Board informed the committee that the laying out of such a way as the committee desired, however desirable it

might be, was not now possible with the present appropriation, which was not more than sufficient for the extension of the parkways already determined upon, and for which the appropriation was made.

The Board, therefore, reports the proposition to the City Government for such action as may be deemed desirable in the premises, and will willingly undertake the duty of examining the territory with a view of determining whether a suitable route for a parkway to connect Franklin Park with Marine Park can be laid out.

The Board renews the recommendation made in earlier reports, that Columbia Street, and Boston Street as far as necessary, be widened to 90 feet, as a direct and ready means of communication between South Boston and Franklin Park.

#### FRANKLIN PARK.

In its last annual report the Board stated that investigations were in progress looking to a revision of the plan of Franklin Park to provide artificial water areas or ponds chiefly for ornamental purposes. These studies have been completed and a new plan of the Park has been prepared and is herewith published, showing the projected ponds and streams which will add much to the beauty of the landscape.

Such other changes in the design, principally in the drives and walks, as the introduction of this feature will require, together with those made from time to time as the work of construction has progressed, and further study by the landscape architects has found to be desirable, are also shown on the map. A change in the manner of constructing Seaver Street is also indicated, providing for a future extension of the street-car service along the northerly border of the Park.

Plans have been drawn by Messrs. Hartwell & Richardson for a refectory to be erected on Refectory Hill, and by Messrs. Rotch & Tilden for the School-master Hill Cottage and the Ellicott House. These have been prepared in consultation with the landscape architects who submitted preliminary plans. The two latter are to be stone and thatch lodges of simple interior arrangements designed to provide such service and conveniences as the use of the arbor on School-master Hill for picnic parties, and the tennis courts in Ellicottdale, seems to require.

The refectory, with its vine-clad arbor, indicated on the map as the Pergola, is designed to be the largest and most important building erected on the Park. It will be of stone, partly two and partly three stories in height, with a Loggia, or roof garden, over the lower portion, in which is also the

main dining-room. It will be arranged conveniently so that refreshments can be served in both the Loggia and Pergola as well as in the dining-rooms, and will have all the accessories of a large establishment of this kind.

A small shelter for the use of those waiting to take the Park carriages has been built, near the Columbia-Street entrance, from a design by Messrs. Sturgis & Cabot.

Arrangements have been entered into with Messrs. Bacon & Turbell to furnish a sufficient and well-conditioned Park carriage-service, at reasonable fare, which will permit "stop-overs" at all important points, and will make the circuit of the Park so far as the drives have been completed. The route and regulations for this service are as follows :

Carriages are to stand near the entrance from Blue Hill Avenue and Columbia Street, and are to carry no more passengers than their seating capacity will permit.

Carriages are to run hourly in the forenoon, and half-hourly in the afternoon, from 10. A.M. to half an hour after sunset, and vacant seats may be taken at any place on the route.

The fare for conveyance over the prescribed route is not to exceed twenty-five cents.

The fare from Scarboro' Hill Concourse to the Park entrance, or for any less distance on the return trip, shall not exceed ten cents.

Passengers desiring to be put down at the Overlook, School-master Hill, the Wilderness, Ellicottdale, or Scarboro' Hill, are entitled to be taken up to complete the route by any carriage having vacant seats, without the payment of additional fare.

Carriages are to start from the East Circle of the Greeting, pass by the Circuit Road to the Valley Gate, pass by the Overlook and make the circuit of the Playstead; return to the Valley Gate, pass by the Circuit Road to the east entrance of the Loop Roads, pass by the Loop Roads through the Wilderness, back to the Circuit Road; pass by the Circuit Road to the Scarboro' Hill Road, pass to the Concourse on the summit of Scarboro' Hill. Return by the same route, omitting the Loop Roads and the circuit of the Playstead.

#### MASS MEETINGS IN THE PARKS.

February 13, 1891. Application was made by a committee of labor organizations for the use of such portion of Franklin Park, for a public eight-hour demonstration on May 1, as the Board might see fit to assign for such use on that day.

To this request the Board replied that it saw no reason to depart from the position heretofore taken by the Board on the question of allowing mass meetings in the parks.

This had reference to the refusal of the Board to grant such requests, for reasons set forth in a reply to the Evangelical Alliance and the Central Labor Union, May 31, 1889, as follows :

tion of the Ordinances of the Park Department.

CITY OF BOSTON

RECEIVED

MAY 31 1889

Finance and the Central Labor Union, May 31, 1889,  
DWS:

Agreeable to your wish, the Park Commissioners herewith give you the conclusion arrived at after the hearing on Monday afternoon. As stated to you then, the Commissioners desired the use of the parks to be for the greatest benefit of the greatest number of people — parks to which all the people could resort, and where they could enjoy the largest liberty without any interference, molestation, or annoyance of any kind; where men, women, and children would be safe from the interference of others; where there should be no crowds or gatherings of people — for you know that throngs of men, excited by discussion or debate, are often alarming to the timid. This freedom from all these excitements and other annoyances was the great object of the rule in question. It seemed a necessary rule to secure to the people the true and best object of the parks. The parks are provided by the money of all the people, and should be for the benefit of all the people; giving no right to any class or any organization to monopolize any portions of them, so as to deprive any of the free use thereof. If the Commissioners should accede to your request, all this would be changed. One of you ask the right to discuss great and exciting labor questions, which you claim peculiarly interest you, and seek the privilege of gathering together, to erect stands and create demonstrations, for the purpose of propagating and giving instructions in the principles you represent. The other, The Evangelical Alliance, claim that there are large numbers of people whom they desire to reach with their teachings, who will not come to them, and whom they cannot reach without following them to the parks, there to prevail upon them to listen to their teachings.

It seems to the Commissioners that the public parks should secure all who visit them from such invasions; that visitors should receive what they are led to seek — peace and quiet; to them the parks should be an asylum. It will, of course, be understood by every intelligent person that, in making these remarks, and in insisting that the parks should be kept actually free, as heretofore described, the Commissioners do not intend to disparage discussions on any of the political, economic, or labor questions of the day. They look upon such discussions as calculated for the instruction of the people, and were much interested in the remarks of those who appeared before them; nor can the Commissioners be supposed to entertain other than the highest appreciation of the Christian teachings of the churches represented by the Evangelical Alliance; and yet they believe the public parks could not be used for these purposes without detriment to the great objects and purposes for which they were established. So far as the Commissioners can learn there is no considerable rural park in this country where such meetings are permitted to be held.

The Commissioners, while again expressing their regrets that they cannot have the pleasure of yielding to the wishes of any of their fellow-citizens, see no reason, after reconsidering the question in the light of your various arguments, to change their conclusion as expressed in their former communications; and are of the opinion that the preservation of the parks for the greatest number and the greatest freedom in their use, are best subserved by the continuance of the ordinance in question, and cannot accede to your requests.

Subsequently, on the 4th of July, Henry Abrahams, against the warning of the Park police that it was in violation of the ordinances, addressed a group of people in Franklin Park for the alleged purpose of testing their rights. He was subsequently brought before the Municipal Court in West Roxbury, and, after a hearing, was fined for a violation of the Ordinances of the Park Department.

The defendant subsequently carried the case to the Supreme Court, and the following opinion of the full bench was rendered :

We see nothing in this case to call for any lengthy discussion. The Park Commissioners had, by the Stat. of 1875, Chap. 185, Sect. 3, power "to govern and regulate" any of the parks which they might lay out under the statute, "to make rules for the use and government thereof and for breaches of such rules to affix penalties, not exceeding twenty dollars for one offence, to be imposed by any Court of competent jurisdiction." The rules which the defendant violated are similar in form to the city ordinance which was before the court in *Commonwealth v. Davis*, 140 Mass., 485, and which was held to be reasonable and valid. Of that ordinance Chief-Justice Morton said: "Its purpose is to preserve the public peace, and to protect the public grounds from injury, and it is calculated to effect these ends, without violating the just rights of any citizen." The same language is applicable to the rules before us. See also *Commonwealth v. Plaisted*, 143 Mass., 375; *Quincy v. Kennard*, 151 Mass., 563.

We see nothing in these rules inconsistent with Art. XIX. of the Bill of Rights of this Commonwealth which declares that "The people have a right, in an orderly and peaceable manner, to assemble to consult upon the common good; give instructions to their representatives, and to request of the legislative body, by the way of addresses, petitions; or remonstrances, redress of the wrongs done them, and of the grievances they suffer." The defendant admits that the people would not have the right to assemble, for the purposes specified, in the public streets, and might not have such right in the Public Garden or on the Common, because such an assembly would or might be inconsistent with the public uses for which these places are held. The same reasons apply to any particular park. The parks of Boston are designed for the use of the public generally, and whether the use of any park or of a part of any park can be temporarily set aside for the use of any portion of the public is for the Park Commissioners to decide in the exercise of a wise discretion.

The defendant further contends that the rules in question are in conflict with that provision of the Fourteenth Amendment of the Constitution of the United States, which provides that "No State shall deny to any person within its jurisdiction the equal protection of the laws." This amendment does not impair the police powers of a State. *Barbier v. Connolly*, 113 U. S., 27. And we fail to see anything in the rules, or in the statute authorizing them, which falls within the amendment. The case of *Yick Wo v. Hopkins*, 118 U. S., 356, on which the defendant chiefly relies, was one of race discrimination.

Exceptions overruled.

On September 18, 1891, applications were received from Colonel Strachan and Major Follett for the use of a part of Franklin Park for the annual drill of the Ninth Infantry and the parade of Battery A. A hearing was given to the officers of the Ninth Regiment, at which they stated that they desired to have a sham fight and parade on the Park. On this application the Board

*Voted*, That in the judgment of the Board the fighting of a sham battle or military manœuvres and exercises of this character are incompatible with the proper purposes of Franklin Park, and it is therefore deemed inexpedient to grant the petition.

And on the application of Major Follett, it was

*Voted*, That the Board regrets that it deems it inconsistent with public interests to grant the petition of Battery A to parade on Franklin Park, October 12.

#### ATHLETIC AND PARADE GROUNDS.

In its last two annual reports, under the headings "Athletic Grounds" and "Public Meeting Grounds," the Board suggested the location of a large common on the South Bay which would serve for games of ball and other athletic sports, large open-air meetings, and for training or parade purposes for the militia.

The Board also reported a communication from the owners of a large part of the flats in the bay, giving to the city a six months' option to purchase about 20 acres for this purpose for the sum of ten cents per square foot, or \$98,800. Subsequently, at the request of the Common Council, received through His Honor the Mayor, the Board reported that the cost of filling said area and adjoining streets would be \$310,000; that the cost of constructing a road to connect the same with Swett and Boston streets, the land for which would be given, would amount to \$68,000 more. This, with 10 per cent. added to each for contingent expenses, would make a total of \$415,800. By using city ashes for all but the streets the area could be filled for about \$175,000. No further action was taken by the City Council in the matter at that time. Later in the season the Board considered the availability of the Peat meadow, lying east of Blue Hill Avenue and south of Talbot Avenue, for the purposes of a skating-pond, training-field, and playground. This territory, which is mainly wet ground and of small value for building purposes, had previously been brought to the notice of the Board as well adapted to being made into a lake.

The latter project was not feasible, owing to the small area of water-shed and the great evaporation which would take place over so large an area, but the use of the land for a playground in summer and a skating-pond of shallow flowage in winter was found to be possible with a moderate expense for under-draining and surfacing.

The Board caused surveys to be made of the Peat meadow and adjoining upland, and subsequently, on October 7, called the attention of the Mayor to the availability of the location for the purposes abovementioned, as follows:

For a large public ground for mass meetings, parades, sports, and like uses, there is a tract of about 70 acres in Ward 24, bounded on three sides by Talbot Avenue, Blue Hill Avenue, and the Roman Catholic



cemetery. This tract is composed of about 40 acres of meadow and 30 acres of upland. It is believed that properly drained and treated the meadow can be made suitable for all uses where level ground is needed, and that it can also be flooded in winter to make a skating-pond. The upland would be useful during the preparation of the meadow, and would always be a desirable ground from which to view sports and parades on the meadow, and for some of the manœuvres of troops, the whole being sufficient for a brigade's evolutions.

The ground is near Franklin Park, the street railway in Blue Hill Avenue, and the N. Y. & N. E. R.R., and it is a tract two-thirds of which is at present undesirable for building purposes.

The 40 acres of meadow are assessed for \$15,000, and the 30 acres of upland for \$23,300. The market value can hardly be more than double the assessed value. The expense of draining and preparing these grounds need not exceed \$150,000. A temporary preparation of the grounds for immediate use can be made by under-draining the meadow and by diking and ditching two of its sides at a cost of \$30,000.

Public reference to this proposition was made in the press, and interviews with the officers of military organizations were published, favoring in the main the securing of the grounds for a muster-field.

A committee has been appointed by the present City Council to consider the expediency of securing the ground in the South Bay abovementioned for a public meeting ground.

#### CHARLESBANK GYMNASIUMS.

Inquiries having been received from many quarters in regard to the laying out of the open-air gymnasiums at Charlesbank, the facts relative to the establishment of these grounds are given below in detail.

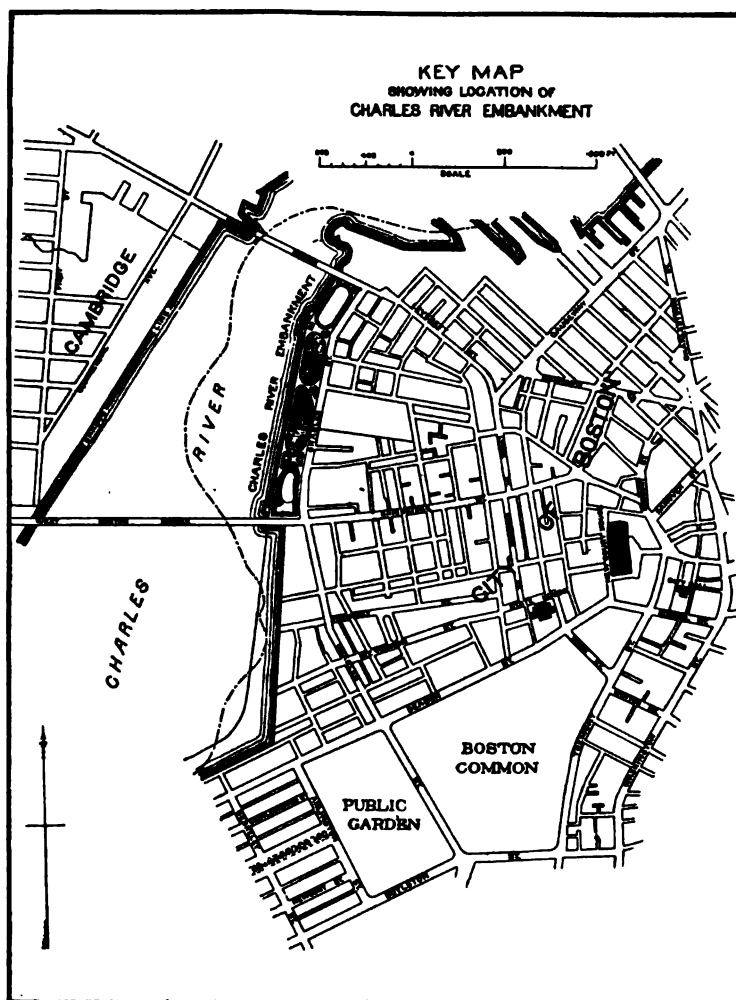
Plans for improving the city shore of the Charles River were first outlined in the second report of this Board in 1876, in connection with the general plan for public parks.

In 1881 authority was obtained from the Legislature to construct that part of the proposed Embankment lying between Craigie's and West Boston bridges and shown in accompanying key map.

Subsequently the City Government made appropriations therefor, and thereupon the sea-wall and filling were completed in 1886, and a plan for the laying out of the grounds was made by the landscape architect, Mr. Frederick Law Olmsted.

In his report (published in the annual report of this Board for 1886) Mr. Olmsted described the leading features of the plan as follows :

*First.* A level promenade nearly half a mile in length, adjoining and overlooking deep water. This promenade is to have an unbroken width of twenty-five feet. It is to be bordered on the side opposite the river by a row of trees, back of which are to be shaded seats, the arrange-



ments being spacious, simple, and convenient for keeping clean and in good order.

*Second.* On the side of the promenade toward the city the larger part of the ground is to be raised above the general level with slopes of a natural aspect, and is to be planted in the character of a natural grove, screening the air coming from that direction, shutting the buildings out of view, giving a certain degree of sylvan seclusion to the promenade, and smothering the roar of the streets to those upon it.

*Third.* A space 370 by 150 feet in extent is to be enclosed and prepared especially as an exercise-ground for women and children, no others being admitted. It is to be screened about with shrubbery, and is to be adapted only to simple forms of recreation in which many can be engaged at a time quietly, without compelling care-taking of excessive cost.

*Fourth.* A space 500 by 150 feet in extent is to be fitted with simple gymnastic apparatus, and subject to use for more robust forms of exercise; but not games or feats likely to attract crowds in which it would be difficult to maintain order, and which would interfere with the comfort of women and children on the promenade.

*Fifth.* Two landings for boats are provided for, and it is intended that boats for hire should be offered at them.

*Sixth.* Two houses to contain water-closets, tool-rooms, and offices of administration are proposed, one at the entrance of the women's exercise-ground and near the southern boat-landing, the other near the gymnastic ground and the northern landing.

*Seventh.* A row of lights at the edge of the embankment, and another along the street, will satisfactorily light the entire ground. No gas-pipes are to be laid in the planted parts.

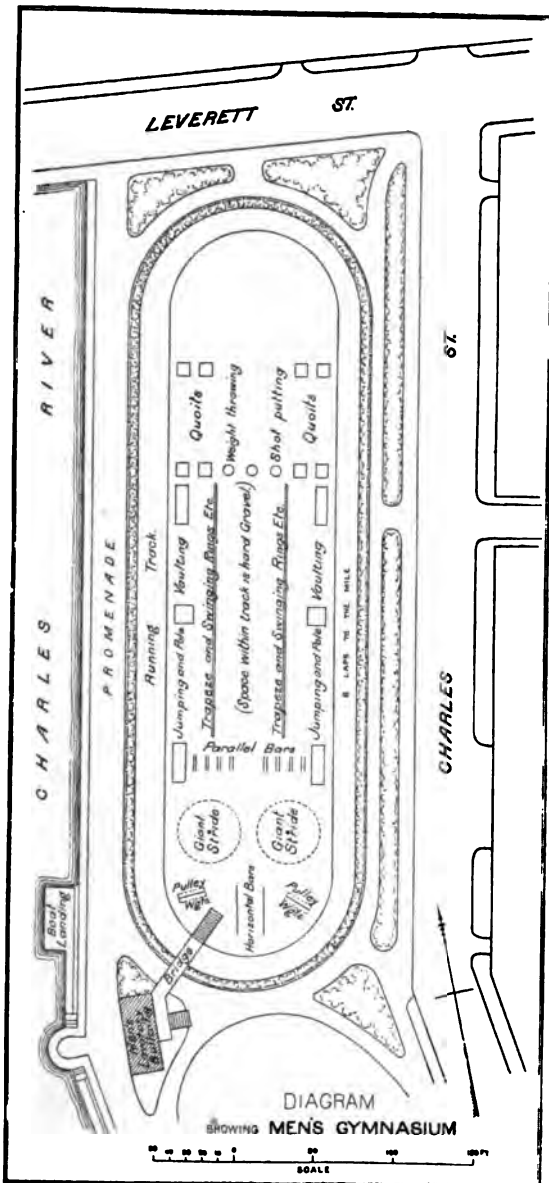
The Embankment is about 2,200 feet long by 200 feet wide and contains about 10 acres.

The men's gymnasium is situated at its northerly end and is surrounded by an iron fence. The Lavatory building is 20 feet by 50 feet on the ground, and is 2 stories in height. The lower story contains offices for the police and foreman, storerooms for tools, etc., and a room for the use of the boat-keeper. The upper story is divided into two rooms, one of which contains water-closets, urinals, and lavatories, and the other is the entrance to the gymnastic ground, and is provided with boxes for clothing.

The latter room is connected with the gymnastic ground by a bridge over the walk and running-track, with stairs from its outer end leading to the ground, to avoid interfering with the use of the track, and the only entrance to and exit from the gymnastic ground is through turnstiles at the entrance to the bridge.

The gymnastic ground is provided with apparatus consisting of two sheds, with 12 sets of chest-weights in each, including 6 high and low pulleys, 2 giant-strides, 8 sets of horizontal bars, 8 sets of parallel bars, 6 jumping-boxes, 7 boxes for quoit-pitching and shot-throwing (arranged as shown in the accompanying cut), 2 sets of jumping standards and ropes, 2 sets of sand-bags and attachments, 4 vaulting-poles, 3 shots, 2 heavy weights, 24 quoits, 20 pairs of dumb-bells, 10 sets of hurdles, and 2 large frames, each 160 feet long, to which are attached the following apparatus :

4 balance-swings.	1 perpendicular ladder.
8 breast-bars.	1 inclined ladder.
4 single swings.	4 pairs of flying-rings.
2 double swings.	4 single trapezes.
5 swinging-ropes.	1 climbing-pole.
1 rope ladder,	2 inclined poles.
1 iron Jacob's ladder.	2 perpendicular poles.



Around the outside of the ground there is a running and bicycle track 15 feet wide and one-fifth of a mile long. The apparatus was designed and furnished by D. A. Sargent, M.D., Professor of Physical Culture, of Harvard University.

There are two drinking-fountains within the enclosure. The men's gymnastic ground was opened to the public on August 27, 1889, in charge of Superintendent John Graham, and under the following regulations:

1. The Superintendent is responsible for the maintenance of order and decorum, and for the exercise of discretion and civility in all use to be made of the gymnasium. His authority corresponds with his responsibility. No one is to enter the gymnasium when forbidden by him; no one is to remain in it when desired by him to leave. Report may be made to the Park Commissioners whenever the Superintendent is thought to have used his authority unjustly, but his authority is not to be resisted or impugned by visitors on the ground.
2. No one is to occupy the gymnasium except while making use of some of its apparatus for exercise or while waiting opportunity to do so, or for a reasonable breathing-time between exercises.
3. No part of the person usually clothed within doors, is to be exposed while in the gymnasium.
4. No person is to use any piece of the apparatus to the exclusion of another person beyond a reasonable time. In cases of dispute the Superintendent will decide what is a reasonable time.
5. No person is to engage in dangerous exercises. If the Superintendent judges any form of exercise by any person to be dangerous, it is to be so considered and refrained from by that person.
6. No part of the apparatus is to be put to other than its proper use, or to be used with excessive violence.
7. In any use of the track the right side of the person is to be kept toward the fence.
8. Shots, hammers, quoits, and poles, after any use of them, are to be placed by their users in the boxes and racks provided for them.
9. Persons not engaged in putting the shot or hammer are to avoid the ground assigned to those who are so engaged.
10. Wheelmen will have the right to use the track during the forenoon of each day; runners during the afternoon. But, with permission of the Superintendent, runners can use it when it is not wanted for wheeling in the forenoon, and wheelmen can use it when it is not wanted by runners in the afternoon.

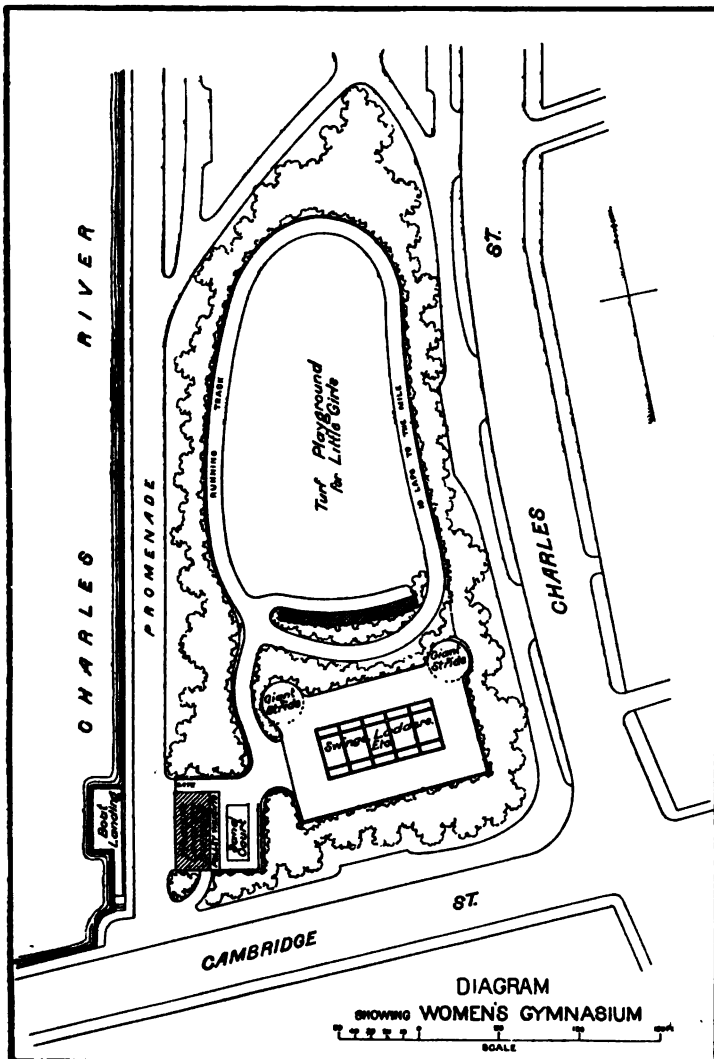
The regulations above recited for the use of the Charlesbank Gymnasium are hereby made ordinances of the Department of Parks. All offending against them will be subject to a fine not exceeding twenty dollars, and will forfeit their right to the use of the ground for the season.

The gymnasium is kept open from April 1 to about the middle of December.

About 100,000 entries for use of the apparatus or grounds were made during the season of 1890, or an average of 447 each day, not including Sundays, upon which day the gymnasium is closed.

In May, 1891, the gymnasium was lighted by a number of arc electric lights, and was kept open until 9.30 P M. The number of visitors entering the men's gymnasium in 1891 was 169,219; the largest registered number passing the turnstile into the grounds for three single days being, May 3, 1,649; July 30, 1,480, and July 31, 1,572.

Besides the Superintendent there is a lodge-keeper, and the Park police can be called upon in cases of necessity. The behavior of those using the grounds has been excellent. No arrests for violating the Gymnasium Regulations or the Park Ordinances were made in 1891. This gymnasium has, we think, proved its usefulness, and under proper guidance it is easily managed.



The women's gymnasium and the playground for children are at the southerly end of the Embankment and are surrounded by shrubbery, which is intended to screen them from the public view. The gymnasium is temporarily enclosed by a high board fence, and dressing booths are placed along the fence on one side of the grounds.

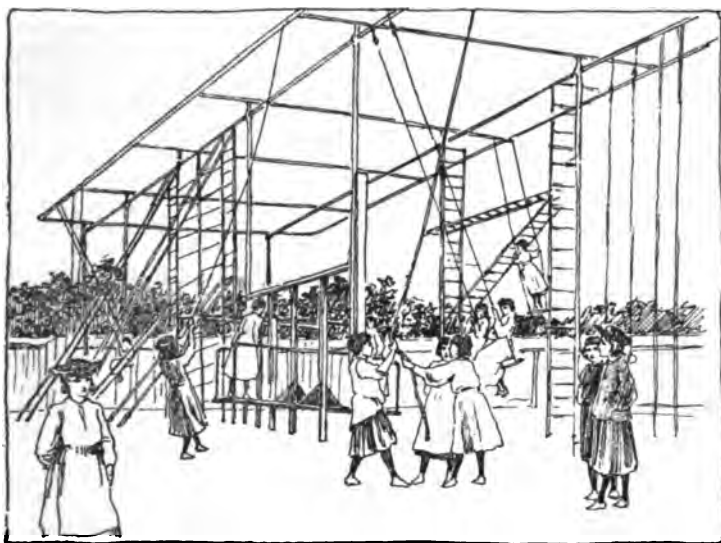
Entrance to the grounds is only through the upper part of the women's lavatory building and within view of the attendant. This part of the building is devoted chiefly to those using the gymnasium and playground. The lower story is used for a tool-room and quarters for the Park foreman and the boat-keeper. Adjoining, and in the rear of the building, are the sand courts for the younger children. The gymnastic apparatus, excepting the iron frame, was furnished and erected by Prof. D. A. Sargent, and consists of the following :

- 2 balance-swings and frames.
- 2 seesaws, with side-rails and guards.
- 2 seesaws, plain.
- 2 single swings.
- 2 pole ladders.
- 2 perpendicular ladders.
- 4 hanging-ropes, fastened at the bottom.
- 1 long inclined rope and attachments.
- 4 long inclined poles.
- 4 short inclined poles.
- 4 perpendicular ladders combined.
- 5 serpentine ladders united, with guard-rails.
- 2 perpendicular climbing-poles.
- 12 swinging-ropes.
- 1 horizontal rope ladder.
- 2 sets horizontal bars and stanchions, with height adjustable.
- 1 set of movable parallel bars.
- 1 set of high parallel bars.
- 1 set of vaulting-bars.
- 11 travelling rings and attachments.
- 2 single trapezes, with height made adjustable by pulley and chain attachments.
- 2 sets of flying-rings, with height made adjustable by pulley and chain attachments.
- 12 pairs of chest-weights to run in wooden boxes.
- 1 set of jumping standards and ropes.
- 2 giant-strides, ropes, handles, and fixtures.
- 24 ring quoits and pins.
- 12 jumping-ropes.
- 12 hoops.

- 25 long wands.
- 98 short wands.
- 98 pairs of wooden dumb-bells.
- 98 pairs of wooden Indian clubs.

The chest-weights are arranged under a projecting part of the building adjoining the sand courts.

The accompanying sketches show the general arrangement of the apparatus.



The problem of the proper supervision, management, and care of this gymnasium was satisfactorily settled by our acceptance of the proposition of the Massachusetts Emergency and Hygiene Association, which is under the management of well-known ladies, to take the entire charge and oversight of it without expense to the city, beyond the furnishing of supplies, cleaning the rooms, and taking care of the grounds and apparatus.

The following regulations for the use and government of the gymnasium and playground were adopted :

1. The Women's Gymnasium and the Children's Playground shall be under the immediate charge and direction of a Superintendent, a Matron, and other assistants, to be appointed by the Park Commissioners upon the nomination of the Massachusetts Emergency and Hygiene Association, which shall have general management of the same.

2. The Superintendent and the Matron shall hold police warrants empowering them to make arrests and to enforce the Park Rules and Regulations.



3. The Superintendent is responsible for the maintenance of order and decorum, and for the exercise of discretion and civility in all use to be made of the gymnasium. Her authority corresponds with her responsibility. No one is to enter the gymnasium when forbidden by her; no one to remain in it when desired by her to leave it. Report may be made to the Park Commissioners whenever the Superintendent is thought to have used her authority unjustly, but her authority is not to be resisted or impugned by visitors on the ground.

4. All persons using the Women's Gymnasium and the Children's Playground do so at their own risk. Neither the Park Commissioners, nor the Massachusetts Emergency and Hygiene Association, nor any member thereof, shall be liable for any personal property lost or stolen on the premises, nor for any injury to any person incurred in the use of the Women's Gymnasium and the Children's Playground.

5. The Women's Gymnasium and the Children's Playground shall be open from 8 A.M. till a half-hour after sunset, daily, except that the use of the gymnastic apparatus shall not be permitted on Sundays, or when the weather is unsuitable.

6. The use of the gymnasium is limited to women and to girls over nine years of age.

7. No one is to occupy the gymnasium except while making use of some of its apparatus for exercise, or while waiting opportunity to do so, or for a reasonable breathing-time between exercises.

8. No person is to use the apparatus unless provided with a suitable dress for gymnastic exercise.

9. No person is to use any piece of the apparatus to the exclusion of another person beyond a reasonable time. In cases of dispute, the Superintendent will decide what is a reasonable time.

10. No person is to engage in dangerous exercises. If the Superintendent judges any form of exercise by any person to be dangerous, it is to be so considered and refrained from by that person.

11. No part of the apparatus is to be put to other than its proper use, or to be used with excessive violence.

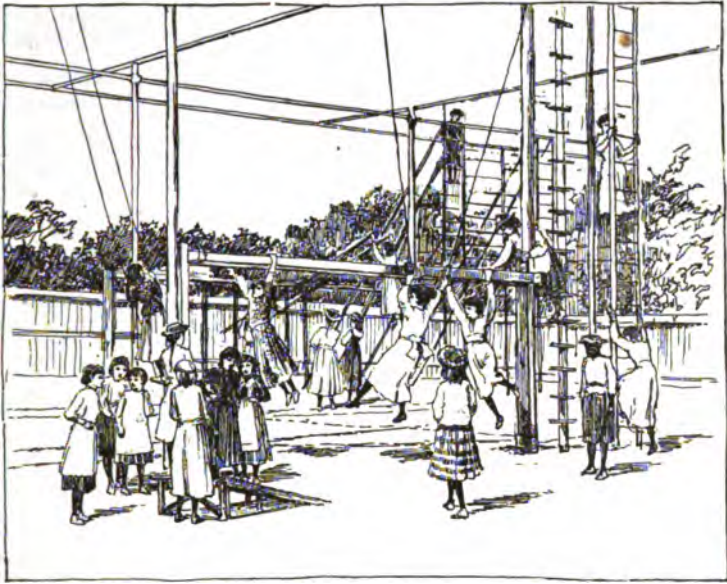
12. In any use of the track, the right side of the person is to be kept towards the fence.

13. Skipping-ropes, quoits, poles, and all other detached apparatus, after any use of them, are to be placed by their users in the boxes and racks provided for them.

The regulations above recited for the use of the Charlesbank Gymnasium for Women and Playground for Children are hereby made ordinances of the Department of Parks. All persons offending against them will be subject to a fine not exceeding twenty dollars, and will forfeit their right to the use of the ground for the season.

Upon the association offering to employ a superintendent, who should be the teacher of the gymnastic apparatus; a matron, who should be a Kindergartner; a house woman and an errand girl; and upon the nomination of its committee having the matter in charge, we appointed Miss Elizabeth McMartin, a former pupil of Dr. Sargent's, Superintendent; Miss Rosa Doyle, formerly Miss Garland's assistant for six years in her Kindergarten, Matron; Miss Maria Dall, House Woman; and Mary Butler, errand girl. The Superintendent

and Matron were also appointed Park police officers, in connection with their respective duties, without pay.



The attendance at this gymnasium is given in the report of the committee in charge which follows.

(The largest registered number for three single days was July 6, 2,477; July 9, 2,368; July 11, 2,389.)

*To the Park Commissioners:*

GENTLEMEN: It is with great pleasure that we submit to you our report of the Women's Gymnasium and Children's Playground at Charlesbank, which has been open from June 1 to November 1, according to our agreement with you.

The registered number of those who have been there is 144,539. This total includes Sundays, the attendance on that day alone being 13,010. In June there were present 33,876, July 46,697, August 37,965, September 18,096, October 7,985. During August many were away on summer vacations. On Sundays the gymnasium proper was closed.

Instruction has been given to 60 classes of children, averaging 26 in each class, and to 101 women singly or in twos and threes. Most of the children were never in a gymnasium before, but many are now able to climb ropes, go up and down the travelling-rings several times in succession and use most of the apparatus with comparative ease. One young woman cleared 4 feet 1 inch on the running high jump, and another can run  $\frac{1}{4}$  of a mile in 37 seconds.

Besides the care that has been given to gymnastic exercises, equal attention has been bestowed upon the small children, who dug day after day in the sand-heaps, and upon the older ones, who were taught to use

Kindergarten materials, and were happy in moulding clay figures and in sewing outline figures on cards.

Many gifts of books, papers, and Kindergarten material have been received. On Sundays the children have sat on the grass and listened to endless stories.

We have been very fortunate in our superintendents, especially in Miss McMartin, who is an exceptionally fine manager. We have not had a single instance of serious trouble.

In June and October, Mrs. Wells was in charge. In July, September, and August, Miss Tower. Miss Huntington and Mrs. Dr. Williams and Mrs. Freeman have also given much aid.

The committee feel that the work has been an unqualified success, and certainly it has been the happiest work we ever did. The influence on the children has been for steady good. Mothers have brought their sewing, while their children played beside them on the grass.

We are most grateful to the Park Commissioners for their ready consent to our plans, and for the wisdom and liberality they have steadily shown us.

If it is your wish that we should assume the management of the Women's Division of Charlesbank next summer as in the season just closed, will you inform us at your earliest convenience?

Yours respectfully,

For the Committee,

KATE GANNETT WELLS.  
ELLEN MAY TOWER.

NOVEMBER 1, 1891.  
423 Boylston street.

The expenditures for construction on account of the gymnasiums were as follows :

#### MEN'S GYMNASIUM.

Cost of building and furnishing . . . . .	\$9,894 63
Gymnasium grounds, fence, and electric poles . . . . .	4,263 61
Gymnastic apparatus, supporting-frames, etc. . . . .	1,934 42
	<hr/>
	<b>\$16,092 66</b>
	<hr/>

#### WOMEN'S GYMNASIUM.

Cost of building and furnishing . . . . .	\$8,335 94
Gymnastic apparatus, frames, etc. . . . .	2,067 16
Gymnasium grounds, fence, etc. . . . .	1,715 76
Shelter for children's Playground . . . . .	860 00
	<hr/>
	<b>\$12,978 86</b>
	<hr/>

The expenditures for maintenance on account of the Men's Gymnasium for 1891 were . . . . .	\$4,579 87
On account of Women's Gymnasium for 1891 were . . . . .	457 28

## EXTENSION OF CHARLESBANK.

In previous reports the Board has pointed out the wisdom of securing the water-front of the Charles River basin for an ornamental embankment similar to that of Charlesbank.

At the suggestion of the Mayor, in his inaugural address of 1891, a petition was made to the Legislature for the appointment of a commission to consider the subject of the Charles River basin in relation, among other things, to the laying out of a series of parks and boulevards along its banks, which resulted in the passage of Chap. 390 of the Acts of 1891, providing for the appointment of the Charles River Improvement Commission.

Also, upon petition of the City Government, the Legislature passed "An Act to authorize the City of Boston to construct a sea-wall and extend the Charles River Embankment, being Chap. 344 of the Acts of 1891." Copies of these acts will be found in the Appendix.

No action by this Board has been taken in the matter pending the report of the Commission to the General Court.

In the Appendix will be found the report of the City Engineer and the Legislative acts and City Council orders relating to public parks.

Respectfully submitted,

THOMAS L. LIVERMORE,  
FRANCIS A. WALKER,  
PAUL H. KENDRICKEN,

*Commissioners.*

BOSTON, Jan. 31, 1892.



## APPENDIX.

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### CITY ENGINEER'S REPORT.

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ENGINEERING DEPARTMENT,  
50 CITY HALL, BOSTON, Jan. 31, 1892.

THOMAS L. LIVERMORE, Esq., *Chairman Board of Park Commissioners:*

SIR: I herewith submit the following report of the work done and of the matters of interest in connection with the work placed under my direction by your Board, the work being continued under the immediate charge of Assistant Engineer, E. W. Howe.

#### THE PARKWAY. — BACK BAY FENS.

*Excavation of Waterway.* — At the beginning of the year there remained a small portion of the waterway in Longwood entrance which had not been excavated. This was done early in the season, and this part of the work is now entirely completed. The dredging-plant has been sold to the Water Department.

*Roadways and Walks.* — Audubon road has been finished to Brookline avenue, and was opened to travel on January 3, 1892.

The roadway and walks on and near Agassiz bridge have been resurfaced, the curbstones reset, and the gutters repaved. This was made necessary by the settlement of the filling in that vicinity.

The Fenway between Huntington and Tremont entrances has been graded, except a small part occupied by piles of loam. The ride on this section has been nearly all surfaced, and the walk next the water has been graded, its gutters built, and a portion of it covered with crushed stone. On March 20, 1891, contracts were made with the Cape Ann Granite Co. for furnishing 2,838 lineal feet of curbstone at \$1.49 per lineal foot, and with S. & R. J. Lombard for furnishing 110,000 paving-blocks, at \$44.90 per thousand. Both of these contracts have been completed.

The stone-crusher has been run continuously since September 2, and a large amount of stone is now on hand for use on the roads and walks during the coming season. The stone for crushing has been purchased as needed, from different parties, at prices varying from 75 to 90 cents per ton.

*Filling.* — At the Tremont and Longwood entrances all the filling required has been done under a contract with the Boston & Albany R.R. Co., dated September 16, 1890. The work was

completed on February 4, 1892, and the total amount of filling deposited was 161,099 cubic yards, at 51 cents per cubic yard.

*Agassiz Bridge.* — The parapet walls of this bridge have been built, thus completing this structure.

*Fen Bridge.* — On November 24, 1890, a contract was made with Mr. William H. Ward, of Lowell, for building this bridge, with the exception of the face walls above the water level. He began work February 20, 1891, and finished it on September 29. The face walls were built by masons in the employ of the Park Department. The entire work was completed on November 17.

This is a masonry arch bridge of 15 feet span and a width of 96 feet. The foundation is of spruce piles capped with 10 × 10 inch spruce caps, which are covered with 4-inch spruce plank, the surface of the plank being at grade —0.5. The abutments are of granite, 12 feet 6 inches high; the arch is of brick, except at the ends, 20 inches thick, with a rise of 4 feet; the ends of the arches, the wing walls above grade 7.5, and the parapet are all of rustic masonry composed of Roxbury stone, all except the voussoirs laid dry, with the spaces between the stones filled with loam. The parapet is of quarried stones very roughly dressed, while the stones below the parapet are field boulders laid without any cutting. The cost of the whole structure was \$27,669.34.

*Stony-brook Bridge.* — On June 23, 1891, a contract was made with Sampson, Clark & Co., of Boston, for building the superstructure of this bridge. Work was begun on July 1, and it is nearly completed. The bridge spans the waterway leading from the outlet of the new channel of Stony brook and supports the main drive and ride of the Fenway. It consists of five arches of 10-feet span each, three over the waterway and two over foot-paths on either side of the waterway. The bridge is 85 feet wide between the parapets. The arches are supported by piers 2 feet square except at the ends of the main piers, where they are 2 feet × 3 feet 6 inches. Below grade 9.5 the piers are supported by a continuous wall 2 feet thick. At the southerly side of the bridge there is at each end a flight of steps leading from the walks next the drive-ways from Huntington avenue to the walks passing under the bridge, which latter connect with the walks along the borders of the main waterway; by this means a passage is furnished to people on foot to all parts of the Fens without crossing the drive or ride at grade. In connection with these passageways, recesses for seats are built in the abutments of the bridge. On the northerly end of the bridge there is to be an iron foot-bridge, just above the level of the water, to connect the two walks. The face work of the masonry is of speckled brick, with trimmings of Milford granite. The barrel vaults underneath the bridge are lined with glazed brick of different colors, laid in patterns. On each staircase there is a drinking-fountain, and the walls are piped for lighting the drive, and also the walks under the bridge. The foundations of the bridge were built in 1887 by the Sewer Department, as a part of the new channel of Stony brook.

The work was done under the direction of this department, from designs furnished by Messrs. F. L. Olmsted & Co., and Walker & Kimball, architects.

*Culvert and Retaining-wall at Brookline Avenue.*—The culvert under Brookline avenue, connecting Muddy river with the waterway in the Fens, has been extended, and the foundations for a retaining-wall at its end have been built. The culvert is elliptical in section, 9 feet high and 7 feet wide, with side walls of concrete lined with brick and a brick arch 12 inches thick. It is on a pile and timber platform. There is a rectangular manhole at the end, with grooves for stop-plank. The retaining-wall at the end of the culvert is semicircular in plan, and is built of concrete, resting upon a pile foundation to grade 7; above grade 7 the wall is to be of bowlder work of the same character as the face walls of the Fen bridge. This bowlder work was not included in the contract, and has not yet been built. The contractor for this work was Mr. William H. Ward, of Lowell. His contract was dated June 23, 1891; work was begun on July 1 and finished on January 7, 1892. The cost of the work covered by the contract was \$8,042.

*Grading of Slopes, Louming, and Planting.*—The slopes between the ride and the water on that part of the Fens between Huntington and Tremont entrances have been graded and covered with loam, except a small portion near Stony-brook bridge. The slopes on the Longwood entrance and on a part of the Tremont entrance have been finished in the same manner.

*Miscellaneous.*—Fifty additional settees have been purchased, and placed along the walks. The regrading of the plantations on Commonwealth avenue, between West Chester park and Beacon street, has been completed, and the section between West Chester park and Charlesgate east has been planted.

The following table, giving the principal items of work completed, has been corrected to date.

		Per cent. of whole.
Channel excavated . . . .	1,227,000 sq. ft.	100
Shore completed . . . .	26,700 lin. ft.	100
Marsh completed . . . .	833,000 sq. ft.	100
Driveway completed . . . .	60,000 sq. yds.	68
Walks completed . . . .	24,000 sq. yds.	46
Ride completed . . . .	8,000 sq. yds.	60
Curbstone set . . . .	25,946 lin. ft.	75
Gutters paved . . . .	13,300 sq. yds.	67
Area covered with loam . . . .	1,023,000 sq. ft.	75
Area planted . . . .	841,500 sq. ft.	60
Boundary fence . . . .	4,047 lin. ft.	26
Drain laid . . . .	6,498 lin. ft.	
Manholes . . . .	6	
Catch-basins . . . .	77	
Bridges and culverts . . . .	6	

A large amount of other work has been partially completed, but cannot be classified.

The usual force engaged upon the care of plantations, roads, walks, etc., has been employed during the year, and the expense of the same has been charged to the appropriation for maintenance.



## MUDDY RIVER AND STONY BROOK COVERED CHANNELS.

The former of these remains in bad condition, as was described in the report for 1887. As the town of Brookline contemplates improving the channels of the brooks flowing into Muddy river, so that in time of freshet the discharge of water into the new open channel through the Parkway will come more suddenly than it does at present, in my opinion it is necessary that the covered channel should be repaired and all obstructions removed. The Stony-brook conduit is in good condition, except that the temporary work at the outlet into Charles river has been somewhat damaged by storms. The gate-chamber has been provided with window frames and sashes, the same having been omitted when it was built.

## MUDDY RIVER.

The contracts in force at the date of the last annual report have all been completed, except a small portion on section C. The buildings on the Downer-street section were removed early in the summer, and on June 23 a contract was made with Richard D. Shanahan for grading this section. The work was completed in December.

The payments under the above five contracts were as follows, the names given being those of the contractors :

<i>Section A.</i> — James Killian . . . . .	\$14,896.24
<i>Section B.</i> — Owen Nawn . . . . .	6,883.05
<i>Section C.</i> — Edward F. Brigham. (Contract not finished.) . . . . .	10,503.92
<i>Section D.</i> — H. P. Nawn . . . . .	87,304.73
<i>Downer-street Section.</i> — Richard D. Shanahan . . . . .	4,576.33

All of the above contracts included the excavation of the waterway and the upland and the disposal of the excavated material as filling on ground which required it. The material was not sufficient for doing all the filling required, nor was much of it suitable for foundations for roads and walks.

On October 21, 1891, a contract was made with the Boston & Albany Railroad Company for furnishing and depositing all the filling required on that portion of the improvement north and west of the waterway between Brookline avenue and the city boundary. The work is now in progress. A contract was made on November 28 with Moulton & O'Mahoney for doing all the grading required on that portion of the improvement on the south and east of the waterway, extending as far as Perkins street. This work is progressing favorably. Preliminary plans for the bridge on Brookline avenue having been furnished by Messrs. Olmsted & Co., working plans and specifications were prepared, in consultation with this department, by Mr. A. H. French, engineer for the Brookline Park Commissioners. A contract for building this bridge was made on December 30 with John Sheehan, of Lynn, and work is now in progress under the direction of the Brookline Park Commissioners.

Plans are now being prepared for the Tremont and Bellevue street bridges, and proposals for doing the work will shortly be received.

Arrangements having been made in conjunction with the town of Brookline for the transportation of loam from Basin 6 of the Boston Water-works, a contract was made with James A. Cahill on July 14 for grading a branch railroad from the main line of the Boston & Albany Railroad to the basin; the work was completed in September, at a cost to the city of Boston of \$1,750.18; on September 28 a contract was made with the Boston & Albany Railroad Company for laying the track on the above branch railroad, and for transporting the loam to the Parkway; nothing has as yet been done for the Boston Park Department under this contract, except the laying of the track.

The drain from the House of the Good Shepherd having been cut off by the removal of the sewer in Downer street, it was extended by a siphon under the waterway, and connected with the sewer in Brookline avenue.

#### ARNOLD ARBORETUM.

At the beginning of 1891, work was in progress on the grading of the road around the north side of Bussey hill and across the meadow to the Parkway near Centre and Orchard streets, under a contract with Wm. T. Davis. This contract was subsequently amended, so as to include the grading of the road leading from the before-mentioned road to the Parkway near South street. Another contract was made on July 23, for grading a temporary road across the Parkway to Centre street. The work called for by these contracts has been finished. The total amount of material moved under them was 70,035 cubic yards, and the payments were \$24,945.51. There remains a small amount of grading to be done where there has been a settlement of the filling across the meadow. On about 1,700 lineal feet of this road, being the portion of the north side of Bussey hill, the catch-basins and drains have been built, the gutters paved, and the roadway ballasted.

On the road leading from the main drive to Walter street, the catch-basins and drains have been built and the gutters paved. The Water Department has laid a 24-inch water-pipe through this road, but the work not having been completed until recently, the road has not been surfaced; it can be done early in the spring.

#### FRANKLIN PARK.

*Drives, Rides, and Walks.* — Glen lane wall has been completed, but the delay in doing it caused by the press of other work for the masons has prevented the completion of the surfacing. The section between Blue Hill avenue and the Entrance road from Columbia street has been entirely finished, while on the section between the last-mentioned road and the crossing of old Glen road the drains and catch-basins have been built and most of the gutters paved, so that it will require but a short time to complete the work.

The triangular space between Blue Hill avenue, the entrance from Columbia street, and the easterly end of the Greeting has been

graded, and the plantations prepared for planting. The circle at the easterly end of the Greeting has been graded. The curbstone has been set, the gutters paved, and the roadway ballasted. Loop road has been finished, and the last section of it was opened to travel on May 24. The walks in the vicinity are nearly finished, and 1,500 lineal feet of granite steps have been purchased for the same. The ride through the Wilderness has been surfaced. Circuit drive is sub-graded from the junction with the road to Columbia street, around the easterly side of the Park to the entrance from Morton street, except a short section across the valley near Canterbury street, where a culvert is to be built, and a section between Canterbury hill and Scarboro' pond which requires filling. On about 800 lineal feet of the Circuit drive the gutters have been paved and the roadway ballasted.

The walk from Ellicottdale to the top of Scarboro hill has been built.

*Drainage.* — The main drain at the westerly end of the Greeting has been extended so as to drain the swampy ground near by. Drains have been built on the easterly end of the Greeting, on Glen lane and on Circuit drive.

*Ellicottdale.* — That portion of this ground where the gardener's cottage formerly stood has been finished.

*Schoolmaster Hill.* — The masonry work of the arbor and of the shelter has been completed, including an additional drinking-fountain. The woodwork of the arbor for supporting vines has been erected, so that this structure is complete, except paving of the walks.

*Ponds.* — Work is now in progress on the excavation of the proposed Ponds south of Scarboro hill, the material being used for filling on Circuit drive, and for building a dam between the Ponds and Morton street.

*Miscellaneous.* — A shelter at the carriage-stand at the entrance to the Park opposite Columbia street is in progress of construction. The flock of sheep increased during the year to 168 in number, and in the fall 64 wethers and old ewes were sold for \$350.88. The yield of wool was 792 lbs, which was sold for \$187.74. In May lamp-posts and lanterns with oil lamps were placed along Glen lane by the Lamp Department, and they have since been maintained by that department.

The following table shows the principal items of work completed to date, but it should not be understood as being a complete statement of the work done, as a large amount of labor has been expended on work which cannot be classified :

Driveways completed	.	.	76,000 sq. yds., or 5 miles.
Walks completed	.	.	47,700 " or 6 $\frac{3}{4}$ miles.
Ride completed	.	.	10,500 " or $\frac{3}{4}$ of a mile.
Gutters paved	.	.	15,100 "
Curbstone set	.	.	6,460 lin. ft.
6-in. water-pipe laid	.	.	3,000 "
4-in. water-pipe laid	.	.	1,150 "
Hydrants	.	.	7

Drinking-fountains . . . . .	8
Bridge . . . . .	1
Gateway . . . . .	1
Boundary wall . . . . .	4,468 lin. ft.
2-ft. 9-in. brick drain . . . . .	706 "
2 ft. $\times$ 2 ft. 6-in. brick drain . . . . .	180 "
2-ft. brick drain . . . . .	769 "
18-in. pipe drain . . . . .	3,020 "
15-in. pipe drain . . . . .	2,895 "
12-in. pipe drain . . . . .	1,546 "
10-in. pipe drain . . . . .	1,844 "
8-in. pipe drain . . . . .	7,914 "
4-in. pipe drain . . . . .	190 "
4-in. agricultural tile drain . . . . .	2,100 "
3-in. agricultural tile drain . . . . .	3,520 "
2-in. agricultural tile drain . . . . .	26,713 "
1½-in. agricultural tile drain . . . . .	19,700 "
Total drain . . . . .	71,097 "
Manholes . . . . .	41
Catch-basins and inlets . . . . .	143
Open channel for brook . . . . .	2,300 "
Area of ground graded and planted or seeded . . . . .	85 acres.

Eight hundred lineal feet of Circuit drive have been ballasted and covered with crushed stone, while 2,200 lineal feet have been sub-graded and drained.

#### MARINE PARK.

*Filling.* — The filling done under the contract with Joseph E. White, dated October 5, 1889, was completed on October 16, 1891. There were deposited 268,450 cubic yards; the amount paid was \$163,754.50. The work of filling north of Broadway under the contract with Perkins & White, dated September 10, 1890, is still in progress, there having been deposited 310,000 cubic yards.

*Loam.* — On October 12, 1891, a contract was made with Perkins & White for furnishing and placing loam on that portion of the Park south of the south line of Broadway extended. This work is now in progress.

*Q-street Bulkhead.* — On February 14, 1891, a contract was made with Perkins & White for building a bulkhead on easterly line of Q street, extending northerly 440 feet from East First street, for retaining the filling on the Park. The work was completed in November, at a cost of \$4,985.

*Castle-island Bridge.* — On July 14, 1891, a contract was made with William L. Miller for building a temporary pile-bridge to connect the mainland with Castle island. Work was begun on August 4, and will be completed early the coming season.

*Miscellaneous.* — Additional toilet accommodations for men have been provided at the refectory building. One hundred settees have been placed upon the iron pier, and a new boat purchased.

## WOOD ISLAND PARK.

Additional land and flats having been taken for an extension of the Park, thereby rendering necessary a revision of the plan, but little work of construction has been done. A topographical survey of the land taken has been made.

The grounds prepared in 1890 have been planted.

## CHARLESBANK.

*Men's Gymnasium.* — The grounds and apparatus having been put in thorough repair, the gymnasium was opened for the season on March 30. Beginning on May 19, the gymnasium was opened in the evening until 9.30 o'clock. For this reason 13 electric arc lights were provided within the grounds. This change has been very popular, the attendance in the evening during the warm weather having been large and very orderly. The nights having become so cool that the evening attendance had largely fallen off, the evening opening was discontinued on November 7. The gymnasium was closed for the season on January 2, 1892. The attendance for the season was 169,591, an average of 707 per day. Of this number there attended after 7 o'clock P.M. 46,548, or an average of 312 per evening.

Experience has shown that further accommodations in the shape of bathing and dressing rooms are very much needed in connection with the gymnasium.

*Women's Lavatory Building.* — This building was completed early in the season, it having been constructed under the direction of Messrs. Walker & Kimball, architects. It is of two stories, the lower story being devoted to rooms for the boatmen and workmen and a tool-shed. The upper story is occupied as a woman's lavatory and entrance to the women's gymnasium. Toilet accommodations and boxes for depositing clothing are provided, and turnstiles, with a register attached, control the passage to the gymnasium.

*Women's Gymnasium and Girls' Playground.* — During the spring the gymnastic apparatus furnished by D. A. Sargent, M.D., was put in place, the frames for supporting the same having been erected the previous season. This apparatus consists of the following pieces :

- 2 balance-swings and frames.
- 2 seesaws, with side-rails.
- 2 seesaws, plain.
- 2 single swings.
- 2 pole ladders.
- 2 perpendicular ladders.
- 4 perpendicular ladders, combined.
- 5 serpentine ladders.
- 1 horizontal rope-ladder.
- 2 perpendicular climbing-poles.
- 4 long inclined poles.

- 4 short inclined poles.
- 4 hanging-ropes.
- 12 swinging-ropes.
  - 1 long inclined rope, with attachments.
  - 1 set of high parallel bars.
  - 1 set of movable parallel bars.
  - 2 sets of horizontal bars, adjustable.
  - 2 sets of flying-rings, with pulley attachments.
  - 2 single trapezes, with pulley attachments.
- 11 travelling-rings, with attachments.
  - 2 giant-strides.
- 12 pairs chest-weights.
  - 1 set of vaulting-bars.
  - 1 set of movable standards for high jumping.
- 98 pairs wooden dumb-bells.
- 98 pairs wooden Indian clubs.
- 98 short wands.
- 25 long wands.
- 24 iron quoits.
- 12 iron hoops.
- 12 jumping-ropes.

A temporary fence was built around the gymnasium to serve as a screen until the trees and shrubs have become grown. Closets for the dumb-bells, wands, etc., also sixteen dressing-booths were built within the inclosure. Three sand-courts were constructed in the rear of the building. The Girls' Playground consists of a smooth lawn around which runs a ciuder track an eighth of a mile in length. A wooden shelter with seats overlooking the playground has been built under the direction of Messrs. Walker and Kimball.

The gymnasium and playground were opened on June 1 and closed on October 31. They have been in the charge of the Massachusetts Emergency and Hygiene Association, which has provided for their superintendence and the instruction of those using the apparatus. The attendance during the season in both the ground and gymnasium was 144,539, of which number 13,010 were admitted to the playground on Sundays, the gymnasium being closed on that day. The average attendance on week-days was 1,095.

*Brick Walk.* — On September 29, a contract was made with Adelaar Phaneuf for paving with brick the walk along Charles street. The work was completed on November 17, and there were laid 3,190 square yards of walk, at a cost of \$4,822.10.

*Miscellaneous.* — Fifty additional settees have been purchased, and temporary awnings have been erected over a portion of them.

#### CHARLESTOWN PARKS.

On August 11 a small force was set at work on Charlestown Heights grading the grounds, which work is still in progress.

At the playground, on Alford street, the Street Department is dumping ashes for filling, and considerable material has been received from other parties without expense to the city; the buildings

have been removed from the Guild property with one exception, and the vats of the old tannery filled with earth.

MISCELLANEOUS.

Various land-surveys and plans have been made during the year, including those of the land taken for the Dorchester Park on Dorchester avenue and Adams street, for the proposed extension of the South Boston Parkway, and for a proposed muster-ground. Estimates have been made of the cost of various improvements under consideration by the department.

Respectfully submitted,

WILLIAM JACKSON,  
*City Engineer.*

STATUTES OF THE COMMONWEALTH AND ORDERS  
OF THE CITY OF BOSTON CONCERNING  
PUBLIC PARKS.

COMMONWEALTH OF MASSACHUSETTS.

[CHAP. 301.]

*In the Year One Thousand Eight Hundred and Ninety-one.*AN ACT TO AUTHORIZE THE CITY OF BOSTON TO INCUR A  
DEBT FOR PARK PURPOSES BEYOND THE LIMIT FIXED  
BY LAW.*Be it enacted by the Senate and House of Representatives in  
General Court assembled, and by the authority of the same,  
as follows:*

SECTION 1. For the purpose of paying for lands heretofore acquired or which may hereafter be acquired by the city of Boston for public parks, and for defraying the costs and expenses of constructing said parks, said city may, by a vote passed in the manner provided by section seven of chapter twenty-nine of the Public Statutes, authorize its treasurer to issue from time to time, on the request of the park commissioners approved by the mayor of said city, to the amount of three million five hundred thousand dollars, negotiable bonds or certificates of indebtedness, payable in not exceeding fifty years from their date and bearing interest at a rate not exceeding four per cent. per annum, to be denominated on the face thereof, Public Park Loan.

SECT. 2. Said treasurer shall, when authorized by said city as hereinbefore provided, from time to time, when requested as aforesaid, issue and sell said bonds and certificates to the amount requested, retain the proceeds thereof in the treasury of said city, and pay therefrom the expenses incurred for the purposes aforesaid; *provided, however,* that said board shall not purchase or take, to be paid for from the proceeds aforesaid, lands exceeding in value, as assessed for the year eighteen hundred and ninety, one million dollars; nor shall said treasurer issue in any one year, of the aforesaid bonds and certificates, a greater amount than seven hundred thousand dollars.

SECT. 3. The debt and loan authorized by this act shall not be considered or reckoned in determining the authorized limit of indebtedness of said city under the provisions of section four of chapter twenty-nine of the Public Statutes as modified and amended by section two of chapter one hundred and seventy-eight of the acts of the year eighteen hundred and eighty-five.

SECT. 4. This act shall take effect upon its passage.

[Approved May 7, 1891.]



## COMMONWEALTH OF MASSACHUSETTS.

[CHAP. 344.]

AN ACT TO AUTHORIZE THE CITY OF BOSTON TO CONSTRUCT  
A SEA-WALL AND EXTEND THE CHARLES RIVER EMBANK-  
MENT.

*Be it enacted by the Senate and House of Representatives in  
General Court assembled, and by the authority of the same, as  
follows :*

SECTION 1. The city of Boston may, by its board of park commissioners, build a sea-wall on the Boston side of the Charles river from the sea-wall of its present park, situated between Craigie's bridge and West Boston bridge, to the sea-wall of said river in the rear of Beacon street in said city, on or within the following lines: Beginning at a point in the southwest corner of the stone wall of the Charles river embankment, or Charlesbank, thence running southerly by a straight line to a point in Charles river three hundred feet distant westerly from the harbor commissioners' line, measuring on a line perpendicular to the said commissioners' line at its intersection with the southerly line of Mount Vernon street; thence continuing southerly and westerly from the aforesaid perpendicular line, on such lines, curved southerly and westerly from the aforesaid straight line, as said board of harbor and land commissioners shall approve.

SECT. 2. The said city, by said park commissioners, shall fill in the grounds enclosed by said sea-wall, and use the same for the purposes of a public park, in accordance with the provisions of chapter one hundred and eighty-five of the acts of the year eighteen hundred and seventy-five, and may grant the right to use, and the persons to whom such rights may be granted may use, portions of said grounds for boat or bath houses.

SECT. 3. The lines of the sea-wall aforesaid shall constitute the harbor lines, beyond which no wharf, pier, or other structure shall be extended into or over the tide-water of said basin, excepting such bath-houses, boat-houses, and landing-places as the said board of park commissioners shall build or permit to be built, with the approval of the said board of harbor and land commissioners; and when the city of Boston shall have built the said sea-wall and filled in the said grounds as a park, as aforesaid, and so long as the same shall be used as a public park, the Commonwealth will not authorize or permit any person or corporation to construct any extensions or erections from or contiguous to the water line of said park, except with the consent of said park commissioners.

SECT. 4. Said city may take any land or water rights and any flats or lands covered by tide-water, between the present harbor commissioners' line and the line on which the said wall is hereby authorized to be built necessary for the purposes aforesaid, and the damages incurred thereby shall be paid by the city of Boston;

*provided, however,* that said city shall not be liable to pay any other damages than the Commonwealth itself would be legally liable to pay.

SECT. 5. Any person whose lands, flats, or rights are taken under authority of this act shall have the same rights and remedies in obtaining damages for such taking as persons injured by the taking of their lands for highways in said city, except as above provided.

SECT. 6. This act shall take effect upon its passage.

[*Approved May 20, 1891.*]

COMMONWEALTH OF MASSACHUSETTS.

[CHAP. 390.]

AN ACT TO PROVIDE FOR THE APPOINTMENT OF THE CHARLES RIVER IMPROVEMENT COMMISSION.

*Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows :*

SECT. 1. The governor, by and with the advice and consent of the council, shall appoint three citizens of the Commonwealth, who, together with the mayor of the city of Boston, the mayor of the city of Cambridge, the mayor of the city of Newton, and the chairman of the board of selectmen of the town of Watertown, for the current year eighteen hundred and ninety-one, shall constitute a commission on the improvement of Charles river, and shall serve without compensation.

SECT. 2. Said commission shall consider what improvement can be made in the Charles river basin, between the dam at Watertown and the Charles river bridge in Boston, the bridges over said river, and the parks along the banks thereof, in said cities and town ; and shall consider such other matters relating to the general commercial interests of the Commonwealth and of said cities and town in said river, as they may deem proper, and shall report their investigations to the next general court, and to each succeeding general court during the continuance of the commission. Said commission may expend a sum not exceeding three thousand dollars in making their investigations, which sum shall be paid from the treasury of the Commonwealth, on properly approved vouchers presented to the auditor, in the same manner as other claims against the Commonwealth. The term of office of the commissioners provided for in this act shall expire within two years from the date of the passage thereof.

SECT. 3. This act shall take effect upon its passage.

[*Approved June 10, 1891.*]

CITY OF BOSTON,  
IN COMMON COUNCIL, May 18, 1891.

*Ordered*, That the city treasurer issue from time to time, on the request of the park commissioners, approved by the mayor, to the amount of seven hundred thousand dollars in each year, and to the total amount of three million five hundred thousand dollars, certificates of indebtedness payable thirty years from their date, and bearing interest at the rate of four per cent. per annum, to be denominated on the face thereof, "Public Park Loan."

And the board of park commissioners is hereby authorized to expend the proceeds of said certificates for paying for lands which they have heretofore acquired, or may hereafter acquire, for the city for public parks, and for defraying the costs and expenses of constructing said parks; but the said commissioners shall not purchase or take land exceeding in value, as assessed for the year eighteen hundred and ninety, one million dollars.

*Ordered*, That any premiums or gain obtained by the treasurer in the negotiation or sale of said certificates of indebtedness shall be paid to the board of sinking funds commissioners for the redemption of the debt.

*Passed*. Yeas, 57. Nays, 4. Sent up for concurrence.

In Board of Aldermen, May 18, concurred. Yeas, 10. Nays, none.

[*Approved by the Mayor May 20, 1891.*]



ANNUAL REPORT  
OF THE  
PRINTING DEPARTMENT,  
FOR THE YEAR 1891.

Boston, February 10, 1892.

HON. NATHAN MATTHEWS, JR.,  
*Mayor of the City of Boston:*

SIR: In compliance with the requirements of Chapter 3, Section 22, of the Revised Ordinances of 1890, and the order of the City Council of November 30, 1891, the following report of the acts and doings and receipts and expenditures of the Printing Department, from and including the first day of January, 1891, to and including the thirty-first day of January, 1892, is respectfully submitted:

STATEMENT OF THE PRINTING APPROPRIATION.

***Balances from Appropriation of 1890-91.***

Stationery . . . . .	\$311 06
Record Commissioners' Item . . . . .	998 10
Salary of Superintendent, Clerk-hire, and other expenses . . . . .	1,351 02
Printing Stock . . . . .	2,000 00
City Bonds . . . . .	360 00

*Carried forward,*

**\$5,020 18**

<i>Brought forward,</i>	\$5,020 18
<b>CITY COUNCIL PROCEEDINGS:</b>	
Newspaper Reports . . . . .	\$3,502 00
Stenographic Reports . . . . .	875 06
Index to City Council Proceedings . . . . .	604 31
	<hr/> 4,981 37
Revenue from sale of stock and postals to other departments .	8,909 26
	<hr/> \$13,910 81
Transferred from Incidentals to the credit of Record Commissioners' Item . . . . .	4,000 00
<b><i>Appropriation for Nine Months, 1891-92.</i></b>	
Documents, etc. . . . .	17,064 00
Stationery . . . . .	396 00
Record Commissioners' Item . . . . .	2,388 00
Salary of Superintendent, Clerk-hire, and other expenses .	3,582 00
Printing Stock . . . . .	2,000 00
City Bonds . . . . .	896 00
<b>CITY COUNCIL PROCEEDINGS:</b>	
Newspaper Reports . . . . .	\$3,000 00
Stenographic Reports . . . . .	2,786 00
Index to City Council Proceedings . . . . .	2,388 00
	<hr/> 13,174 00
Revenue from sale of stock and postals to other departments .	12,501 37
<b>Total . . . . .</b>	<hr/> <b>\$69,412 18</b> <hr/>

## EXPENDITURES.

*Office Expenses.*

Salary of Superintendent and Clerks . . . . .	\$4,918 53
Extra Clerical Service . . . . .	464 00
Telephone Service . . . . .	120 00
Messenger Service . . . . .	84 40
Advertising . . . . .	24 19
Subscription to "Boston Daily Advertiser," and binding the same . . . . .	18 00
Printing — office-blanks, account-books, etc. . . . .	83 15
Stationery . . . . .	41 00
Teaming electrotype plates to and from the City Printers . . . . .	7 00
	<hr/> \$5,755 27

NOTE. — \$1,092.69 of the Item Salary of Superintendent and Clerks, is for compiling Index to the City Council Proceedings.

*City Council Proceedings.*

Newspaper Reports . . . . .	\$9,498 00
Stenographic Reports . . . . .	8,875 06
Index to Proceedings — printing, binding, etc. . . . .	2,001 32
	<hr/> 15,374 38

*Record Commissioners' Item.*

1,500 copies 22d Report:	
Composition, electrotyping, and press-work . . . . .	\$1,288 01
Paper Stock . . . . .	206 50
Binding in cloth . . . . .	221 00
	<hr/> \$1,715 51
600 copies Colonial Laws 1672, 600 pp.:	
Printing from plates . . . . .	\$472 50
Binding, half morocco . . . . .	624 00
	<hr/> 1,096 50

*Carried forward,*

\$2,812 01 \$21,129 65

# PRINTING DEPARTMENT.

3

<i>Brought forward,</i>	\$2,812 01	\$21,129 65
600 copies Preface to Colonial Laws :		
Printing from plates . . . . .	\$35 86	
Binding, half morocco . . . . .	624 00	
	<hr/>	659 86
200 copies Reprint of 27th Report :		
Printing from plates . . . . .	\$33 50	
Paper Stock . . . . .	19 25	
Binding, cloth . . . . .	38 28	
	<hr/>	86 03
		<hr/>
		8,557 90

NOTE. — The paper stock, photo-electrotype plates, etc., for the edition of Colonial Laws and Preface, amounting to \$524.75, were paid for in 1890.

## City Documents.

Printing 600 copies, each, of 37 documents of 1890 . . . . .	624 19
Printing 1,000 copies, each, of two lots of Auditor's Monthly Exhibit, 1890 . . . . .	103 30
Binding documents of 1890 in 3 volumes, 200 copies each, skiver, . . . . .	533 35
Printing 600 copies, each, of 152 documents of 1891 . . . . .	2,799 57
Printing 1,000 copies, each, of nine lots of Auditor's Monthly Exhibit, 1891 . . . . .	805 69
Printing 600 copies, each, of 39 lots of Annual Reports . . . . .	3,782 60
Binding 600 copies Annual Reports (in two parts), 600 cloth, 600 skiver . . . . .	645 00
Printing 800 copies of Annual Report of the Financial Department, including Assessing, Collecting, Treasury, and Sinking Fund Reports only . . . . .	245 63
Binding 200 copies of Annual Report of the Financial Department, in skiver . . . . .	125 00
Printing 3,500 copies of Auditor's Annual Report . . . . .	744 25
Binding 1,505 copies Auditor's Report, 946 in cloth, 254 half morocco, marble edge, 159 half morocco, sprinkled edge, 146 full morocco, gilt . . . . .	725 26
Paper stock for Annual Reports and Documents . . . . .	3,660 76
Maps, plans, and heliotypes for the Annual Reports . . . . .	579 80
1,000 copies Fourth of July Oration, Pillsbury, 200 in sheets, 325 paper covers, 250 cloth, 225 morocco . . . . .	479 60
600 copies Mayor Hart's Farewell Message, including 51 bound in morocco . . . . .	128 88
1,900 copies Inaugural Address Mayor Matthews, 3 lots, 150 bound in morocco . . . . .	427 59
800 copies Index to City Documents 1834 to 1891 — compiling and printing . . . . .	537 62
1,700 copies Municipal Register, 1,500 bound in cloth, 200 in sheets for binding with documents . . . . .	1,935 47
1,500 copies Organization of the City Government, 125 in leather covers . . . . .	203 29
1,500 copies Fourth of July Oration, Quincy, 200 in sheets, 300 paper cover, 700 cloth, 300 morocco . . . . .	738 70
Miscellaneous reports bound in cloth . . . . .	50 91

## Clerk of Common Council.

Printing . . . . .	\$38 08	
Stationery and Atlases . . . . .	98 35	136 43

## Miscellaneous.

85 lots Orders of Business for Board of Aldermen and Common Council, 580 pp. . . . .	652 50
Care and storage of stock . . . . .	975 00

*Carried forward,*

Digitized by Google \$46,322 94

<i>Brought forward,</i>	\$46,322 94
Stock purchased with the Appropriation for Printing, for use of the various departments, and credited as revenue to the appropriation, on bills rendered to departments when consumed by same . . . . .	6,481 35
Postage Stamps and Postal Cards, ditto, ditto • . . . .	5,900 00
City Bonds . . . . .	32 50
Loan Circulars, Stamped Envelopes, Complimentary Slips, etc. . . . .	567 74
Stationery for members of the City Council — 101 copies pocket-book edition of Joint Rules, in leather . . . .	277 75

**Extra Publications.**

250 copies Bromley Map of City of Boston . . . . .	408 77
425 copies John Boyle O'Reilly Memorial, in cloth . . . .	206 05
425 copies Shurtleff's History of Boston, from plates, in cloth, . . . . .	395 47
2,000 copies Porter Memorial, 1,750 in cloth, 250 morocco . .	1,312 34
1,500 copies Records of Past City Councils, in cloth . . . .	1,141 38
Revised Ordinances: 150 copies of 1890-91, including composition . . . . .	\$300 37
Proofs, charges for standing matter, corrections, etc., on Ordinances of 1891 . . . . .	730 09
	<hr/>
	1,030 46
	<hr/>
	\$64,076 75

NOTE. — In addition to the Memorial Volumes noted above, there was an edition of 600 copies O'Reilly Memorial, at a cost of

And 600 copies of Shurtleff's History of Boston, at a cost of . . . . . \$230 74  
 paid for by the Contingent Fund of the Board of Aldermen . . . . . 492 28

Also, 1,500 copies O'Reilly Memorial, at a cost of . . . . . 490 26

1,000 copies of Shurtleff's History of Boston, at a cost of . . . . . 829 18

250 copies Bromley Map of City of Boston, at a cost of . . . . . 343 94

paid for by the Contingent Fund of the Common Council;

And 2,000 copies O'Reilly Memorial, printing and stock only, . . . . . 426 04

paid for by Incidentals.

The binding of the O'Reilly Memorial (1,950 in cloth, 50 morocco, amounting to \$438.50) was paid for in 1890.

**RECAPITULATION OF THE PRINTING APPROPRIATION**

*For the thirteen months beginning January 1, 1891, and ending January 31, 1892.*

Total amount of the Appropriation . . . . .	\$53,001 55
Revenue from the sale of stock and postage stamps . . . . .	16,410 63
	<hr/>
	\$69,412 18
Expenditures, per foregoing detailed statement . . . . .	\$64,076 75
Carried forward to the credit of the Record Commissioners' Item for 1892 . . . . .	3,828 20
Balance left in the treasury . . . . .	1,507 23
	<hr/>
	\$69,412 18

The tables on the following pages show the cost of printing, stock, stationery, binding, postal cards, and postage stamps supplied to the courts of the County of Suffolk, the departments of the City Government, and for the other appropriations enumerated, and paid for by the same.

# Printing and Stationery, 1891.

APPROPRIATIONS.	Printing done by Rockwell & Churchhill.	Printing done at House of Industry.	Printing by parties outside contract.	Block from supplies.	Special stock.	Stock by printers.	Stationery.	Postage Stamps and Postal Cards.	Binding.	Totals.
Ancient Records Department . . . . .	\$5 88	..	..	\$0 34	..	..	\$46 88	\$96 50	..	\$119 60
Architect Department . . . . .	81 66	..	..	11 00	\$1 26	..	171 65	61 00	\$5 00	634 61
Assessing Department . . . . .	4,539 47	..	..	193 19	480 86	..	2,454 73	19 00	7 65	7,674 90
Auditing Department . . . . .	172 40	..	..	58 02	..	..	884 47	390 00	..	1,613 89
Board of Aldermen . . . . .	..	..	..	..	..	..	..	..	..	..
Contingent Fund, Board of Aldermen . . . . .	290 82	..	103 37	7 00	231 15	..	56 00	..	329 00	999 34
Soldiers' Relief . . . . .	126 91	..	..	\$3 30	1 98	..	78 68	31 00	..	271 87
Board of Police . . . . .	..	..	..	..	..	..	..	..	..	..
House of Detention . . . . .	2,127 22	..	..	904 59	214 49	4 20	934 73	65 00	..	3,950 24
City Clerk Department . . . . .	46 18	..	..	13 22	..	..	..	..	..	59 40
Election Expenses . . . . .	133 35	..	..	31 28	15 15	1 60	910 96	123 00	..	1,215 33
City Council . . . . .	1,963 52	..	..	338 28	199 72	1 15	910 05	200 00	..	3,612 72
Contingent Fund, Joint Committee . . . . .	870 27	..	..	66 39	4 45	20	..	..	..	941 31
Incidental Expenses . . . . .	244 86	..	822 73	161 62	8 80	17 50	..	25 20	..	1,280 61
Clerk of Committees Department . . . . .	616 53	..	277 94	82 79	154 95	7 75	800 89	359 00	16 50	2,316 35
Collecting Department . . . . .	183 36	\$13 58	96 20	27 65	17 15	4 13	400 10	240 50	..	982 67
Contingent Fund, Common Council . . . . .	1,068 78	..	..	323 83	20 31	60	392 68	567 06	..	2,372 26
Engineering Department . . . . .	320 22	28 00	468 70	..	892 84	..	..	..	590 00	1,799 76
Ferry Department . . . . .	224 06	..	47 94	27 08	54 24	1 25	430 81	80 00	..	865 38
Ferry Department . . . . .	831 95	..	..	45 08	3 40	1 35	31 83	10 00	..	923 61
Head-house No. Ferry, East Boston . . . . .	60 98	..	..	4 41	..	..	..	..	..	65 39
New Ferry Boat . . . . .	95 65	Ferry Boat	..	3 06	..	..	..	..	..	98 71
Five Department . . . . .	867 69	..	162 50	479 02	71 36	..	400 20	97 50	15 00	2,093 27
Free Concerts . . . . .	9 40	..	..	4 66	..	..	..	..	..	14 06
Health Department . . . . .	870 56	..	61 80	235 19	87 43	1 80	501 77	556 00	167 00	2,481 58
Hospital Department . . . . .	1,159 18	..	315 57	321 90	95 09	57 85	147 30	10 00	35 84	2,112 73
Carried forward . . . . .	\$18,900 83	\$41 58	\$2,680 45	\$3,071 80	\$1,904 63	\$100 83	\$9,553 72	\$2,909 76	\$1,165 99	\$38,319 59



## Printing and Stationery, 1891. — Continued.

APPROPRIATIONS.										
Printing done by Churchill & Churchwell.	Printing done at House of Industry.	Printing by parties out- side contract.	Stock from supplies.	Special stock.	Stock by printers.	Stationery.	Postage Stamps and Postal Cards.	Blinding.	Totals.	
<i>Brought forward</i> . . . . .										
Improved Sewerage . . . . .	\$16,900 83	\$41 58	\$2,680 45	\$3,071 80	\$1,904 63	\$100 83	\$9,653 72	\$1,105 99	\$38,319 59	
Inspection of Buildings Department . . . . .	121 66			15 08		24 06	129 09	2 00	291 88	
Inspection of Milk and Vinegar . . . . .	729 34			174 01	169 75	6 70	518 48	360 00	1,947 48	
Inspection of Wires Department . . . . .	161 43			22 47	61 07	7 75	137 17	102 00	482 66	
Lamp Department . . . . .	103 64		30 00	47 11	2 83		217 12	10 00	410 70	
Law Department . . . . .	169 16			58 45	7 50		78 20	131 80	436 10	
Laying Out and Construction of Highways . . . . .	41 02		32 00	6 44	7 28		119 03	37 00	242 77	
Laying Out Streets Department . . . . .	38 16		51 56	10 06			634 34	23 00	687 11	
Legislative Affairs . . . . .	33 71			12 65			56 50	30 00	131 86	
Library Department . . . . .	46 00			61					46 61	
Liquor License Expenses:	3,267 25	14 63	29 00	153 24	839 00	157 76			4,460 87	
Board of Police . . . . .	428 31			87 22	62 32	76	145 43	91 00	815 08	
Treasury Department . . . . .	12 35								12 35	
Police Signal System . . . . .	212 62			76 17			37 75	12 00	338 54	
Market Department . . . . .	28 57			46	1 38	6 00	17 28		52 68	
Mayor, The . . . . .	187 78			19 94	3 93	8 50	783 95	157 00	1,161 10	
Mt. Hope Cemetery Department . . . . .	190 30			20 56	3 50		106 68	14 00	336 04	
Park Department:										
Park Department . . . . .	421 42		587 22	22 75	74 95	5 50	87 75	21 50	1,217 09	
Back Bay Park . . . . .	18 42			9 70			41 75		69 87	
Charlesbank Maintenance and Construction . . . . .	32 24			1 73		2 00	14 64		60 61	
Franklin Park . . . . .	50 64			17 39		18 16	41 36	6 00	133 54	
Marine Park . . . . .	26 43			2 18					28 61	
Public Buildings Department:										
Public Buildings . . . . .	107 37			34 77			163 11	79 00	374 25	
Armories . . . . .									1 75	
Election Expenses . . . . .	52 43		7 50	11 32			10 15	66 00	147 40	
<i>Carried forward</i> . . . . .	\$23,270 97	\$66 21	\$3,397 73	\$3,576 09	\$3,218 14	\$329 28	\$12,784 25	\$4,052 06	\$1,186 70	\$62,174 52

Printing and Stationery, 1891. — Continued.

APPROPRIATIONS.	PRINTING DEPARTMENT.								Totals.
	Printing done by Rockwell & Churchill.	Printing done at House of Industry.	Printing by parties outside contract.	Stock from supplies.	Special stock.	Block by printers.	Stationery.	Postage stamps and Postal Cards.	Blind.
<i>Brought forward</i>	\$23,270 97	\$56 21	\$3,387 73	\$3,876 09	\$3,218 14	\$329 23	\$12,784 26	\$4,052 06	\$1,189 79
Public Buildings Department — Continued.									
Fire Department, Building and site, Eggleston Square.	49 12			3 13					\$52,174 52
" " " " South Boston.	36 76			1 68					52 26
Police Station, Brighton	63 38			2 35		30			38 44
Public Celebrations	412 55			8 80	73 52	6 80		10 00	66 08
Public Grounds	37 96		25 00	12 00	8 82		23 65	33 50	611 67
Public Institutions Department:									148 43
Office Expenses	123 56			37 37					186 37
Dormitory, Austin Farm	45 62			1 73		30			47 66
Hospital, Long Island	51 57			2 35					63 92
Rapid Transit Commission	32 52			6 70		9 00	173 11	7 00	228 33
Registration of Voters Department.	4,710 39		40 00	352 20	20 71		48 00	48 00	5,997 53
Registry Department.	136 33			38 19	66 00		63 65	10 00	314 17
Relief of Poor Department.	211 94			62 61		1 10	132 63	82 00	505 23
School Committee:									
School Committee	3,962 81					3 00			3,965 81
School-Houses, Public Buildings	13 37			35	3 78		48 76	56 00	122 26
Grammar School-House, Agassiz District.	23 16			1 16					24 32
" " " " Billside District.	45 38			4 85					50 23
" " " " Mt. Vernon District.	54 38			2 62					57 00
" " " " No. Brighton District.	57 15			2 62		30			60 07
" " " " Pierce District.	47 12			2 22					49 34
High School-House, Roxbury District.	47 95			5 71					53 66
Lycæum Hall, Dorchester	73 28			4 02					77 30
Primary School-House, Adams District.	45 38			4 85					50 23
" " " " Bunker Hill District.	63 76			5 81					69 57
" " " " Emerson District.	11 87			2 13					14 00
" " " " Geo. Putnam District.	65 75			4 23		60			70 58
<i>Carried forward</i>	\$23,683 03	\$56 21	\$3,462 73	\$4,445 77	\$3,390 97	\$350 63	\$14,016 23	\$4,298 56	\$1,273 73
									\$64,977 96

## Printing and Stationery, 1891. — Continued.

APPROPRIATIONS.										
	Printing done by Churchill.	Printing done at House of Industry.	Printing by parties out- side contract.	Block from supplies.	Special stock.	Block by printers.	Stationery.	Postage Stamps and Postal Cards.	Binding.	Totals.
<i>Brought forward</i> . . . . .	\$33,683 03	\$56 21	\$3,462 73	\$4,445 77	\$3,380 97	\$350 68	\$14,016 28	\$4,298 56	\$1,273 73	\$64,977 96
School Committee — <i>Continued</i> .										
Primary School House, Hillside District.	65 75			5 81						71 56
" " Lowell	66 75			6 06						72 81
" " Prince	45 15			3 97						49 12
Sealing of Weights and Measures.	85 61			21 25	2 40		60 13	17 50		186 89
Sinking-Funds Department.	140 36		11 25	5 11		7 67	28 25	10 00		202 64
Street Department:										
Central office . . . . .	192 89		11 25	31 51	8 02	33 00	602 32	51 00		929 99
Bridge Division.	156 08		12 50	65 92	2 10		145 09	19 75		401 44
Berkeley-st. Bridge.	25 93			2 17						28 10
Essex-st. Bridge.	32 00			2 54						34 54
Ferdinand-st. Bridge.	26 16			2 17						28 33
Irvington-st. Bridge.	24 87			2 11						26 98
Cambridge Bridges Division	37 76			3 51			23 30	16 50		81 07
Paving Division . . . . .	2,254 00		103 25	458 49	121 73	21 60	1,206 97	288 50	3 75	4,458 29
L-st. grading . . . . .	53 78			4 34						58 12
Sanitary Division . . . . .	221 70			77 90	6 84		241 25	30 50		578 19
Sewer Division . . . . .	438 20		32 50	95 50	23 37	198 10	752 62	28 00		1,570 83
Stony-brook Improvement	37 84			3 16						41 00
Street Cleaning Division	246 06		8 00	55 83	69 85	33 30	399 95	79 00		891 99
Surveying Department . . . . .	65 28		32 76	13 28			3 50	104 41	5 00	224 23
Treasury Department . . . . .	297 05		116 68	44 70	21 69	20 98	293 52	63 00		857 62
Water-Works:										
Cochituate Water-Works:										
Income Department . . . . .	680 42			66 90	258 50	75	142 51	58 00		1,204 08
Supply Department . . . . .	611 56		56 99	183 68	21 61	7 89	482 77	179 00	32 00	1,578 50
Additional Supply Water.	167 74			33 06	17 57	1 60	40 39	4 00		264 36
<i>Carried forward</i> . . . . .	\$39,655 97	\$56 21	\$3,580 91	\$5,034 83	\$3,944 15	\$679 07	\$15,539 76	\$5,148 31	\$1,300 43	\$75,818 69

# PRINTING DEPARTMENT.

9

## Printing and Stationery, 1891.—*Concluded.*

APPROPRIATIONS.	Printing done by Rockwell & Churchhill.	Printing done at House of Industry.	Printing by parties outside contract.	Stock from supplies.	Special stock.	Block by printers.	Stationery.	Postage Stamps and Postal Cards.	Binding.	Totals.
<i>Brought forward.</i>	\$39,655 97	\$66 21	\$3,850 91	\$5,624 83	\$3,944 15	\$679 07	\$18,539 76	\$5,143 31	\$1,909 43	\$79,813 09
Water-Works — <i>Continued.</i>										
Mystic Water-Works:										
Income Department	293 81			14 10	96 09		13 50	88 00		593 50
Supply Department	69 04			17 65	1 02		46 12	34 00		157 83
County of Suffolk:										
Auditing Department	10 91			96			44 70			56 57
Treasury Department	9 66									23 31
Medical Examiners	39 70			7 56	5 71	1 26	7 00			59 23
Public Buildings	7 45			1 93			6 00			19 38
Jail	30 64			8 93						39 57
Probate Court	612 37			9 75	510 63	18 26	821 60	5 00		1,977 90
Registry of Deeds	156 00				278 46		1,757 88			2,462 52
Superior Civil Court	2,311 40			137 99		27 54	903 31	23 00	270 18	3,408 74
Superior Criminal Court	971 99			68 77	18 21	5 75	711 20	30 00		1,803 92
East Boston District Court	28 04			11 28			17 45			56 77
Municipal Court, Brighton	4 65			6 73						41 01
" Charlestown	35 76	29 63		15 85			64 30			136 25
" Dorchester	51 76	20 35		12 34		3 00				67 10
" Roxbury	172 68	4 65		89 72			75 66			342 61
" South Boston	205 15			56 43		2 25	90 09	12 00		365 92
" West Roxbury	70 34			12 45		6 00	22 78	2 00		113 57
	\$44,727 21	\$110 84	\$3,850 91	\$6,107 92	\$4,864 27	\$743 11	\$23,120 85	\$5,362 31	\$1,579 46	\$90,457 08

NOTE. — In addition to the sum of \$5,362.31 for postage stamps and postal cards, bills for \$173.50 have been rendered to the departments, but not paid at the time of making this report; also, there was consumed in the department of Printing, postage stamps amounting to \$34.51, making the total \$5,670.36.

## STOCK ACCOUNT.

Value of stock on hand Dec. 10, 1890, per last report . . . . .	\$2,258 11
Value of stock purchased during the year . . . . .	15,881 40
	<hr/>
	\$17,639 51
Value of stock consumed by the different departments during the year . . . . .	\$10,962 19
Value of stock consumed on Documents, etc. . . . .	2,571 03
Value of stock on hand Dec. 10, 1891 . . . . .	4,106 29
	<hr/>
	\$17,639 51

## POSTAL CASH ACCOUNT.

Balance brought forward from 1890 . . . . .	\$55 00
Amount of drafts drawn during the year . . . . .	5,900 00
	<hr/>
	\$5,955 00
Value of postage stamps purchased during the year . . . . .	\$5,265 00
Value of postal cards purchased during the year . . . . .	390 00
Cash on hand Jan. 1, 1892 . . . . .	800 00
	<hr/>
	\$5,955 00

## POSTAL PURCHASE AND SALE ACCOUNT.

Value of postage stamps and postal cards brought forward from 1890 . . . . .	\$628 59
Value of postage stamps and postal cards purchased during the year . . . . .	5,655 00
	<hr/>
	\$6,283 59
Value of postage stamps and postal cards sold to the different departments . . . . .	\$5,570 35
Value of postage stamps and postal cards on hand Jan. 1, 1892 . . . . .	713 24
	<hr/>
	\$6,283 59

## RECAPITULATION.

Printing, binding, stock, stationery, postal cards, and postage stamps supplied to the various departments, as shown in tables, and paid for out of their appropriations . . . . .	\$90,457 08
Expenditures of the Printing Department (including office expenses) . . . . .	64,076 75
Carried forward to the credit of the Record Commissioners' Item of Printing Appropriation for 1892 . . . . .	3,828 20
Balance left in the treasury . . . . .	1,507 23
	<hr/>
Total . . . . .	\$159,869 26

The writing-inks furnished to the courts of the County of Suffolk and the departments of the City Government, through this department, are of standard makes, such as Stephens', Carter's, David's, Stafford's, Arnold's, Maynard & Noyes', Thomas', Underwood's, and Lyons', according to the requisition of the department ordering; and, so far as I am at present informed, fill all the requirements for books of record.

The papers used for the books of record are Weston's, Brown's, American Linen, and Whatman's, preference being given in all cases to those of domestic manufacture.

THOMAS J. LANE,  
*Superintendent of Printing.*



[DOCUMENT 28 — 1892.]



ANNUAL REPORT  
OF THE  
DEPARTMENT OF PUBLIC BUILDINGS,  
FOR THE YEAR 1891.

OFFICE OF THE SUPERINTENDENT OF PUBLIC BUILDINGS,  
NILES BUILDING, 27 SCHOOL ST., ROOM 44, Feb. 1, 1892.

HON. NATHAN MATTHEWS, JR.,  
*Mayor of the City of Boston:*

SIR: In compliance with the ordinance relating to the Department of Public Buildings, I have the honor to submit the following report:

The public buildings in charge of this department, belonging to the city of Boston, number 119, together with 3 leased buildings and 18 rooms in different buildings, variously occupied for city purposes. The City Hall is occupied entirely by the various departments and offices of the city.

The Fire Department requires for its service the use of 61 buildings, occupied as follows:

- 37 Engine-houses.
- 7 Chemical-engine houses.
- 6 Hose-houses.
- 7 Hook-and-ladder houses.
- 1 Repair-shop, 1 stable and storehouse.
- 2 Fuel-houses.



The buildings in use wholly by the Police Department number 15, 12 of which are in use for police station-houses, and the remainder for lock-ups; the remaining police stations, which number 5, are in other city buildings.

This department also has the charge of the City Hall (Charlestown District), Faneuil Hall and Faneuil-Hall market-house, Charity Bureau, Old State House, and stables of the Department of Sanitary Police.

Estates numbered 7 Pemberton square, 12 and 14 Beacon street, and rooms in 74 Tremont street, 27 and 28 School street, and Exchange Building, State street, are occupied for city offices.

The amount expended the past 13 months for rents, taxes, and heating for this outside property has been \$30,213.67.

The public buildings occupy 1,117,044 square feet of land.

The school-houses owned by the city number 176, occupying 3,393,780 square feet of land.

In addition, 26 buildings were leased for school purposes, at a rental of \$12,682.56, and containing 48 school-rooms.

The Court House, Probate Building, and County Jail are used for county purposes alone.

The Municipal District Courts number 7, and occupy rooms in city buildings in various sections of the city.

The county buildings cover 162,728 square feet of land.

The expenditures for repairs, alterations, improvements, heating, furnishing, care, and cleaning have been as follows :

Public buildings . . . . .	\$163,343 29
County buildings . . . . .	53,503 21
School-houses . . . . .	247,928 17
Armories . . . . .	24,345 83
Election expenses . . . . .	30,692 16

These expenditures in detail are as follows :

#### PUBLIC BUILDINGS.

Rents and taxes . . . . .	\$29,371 21
Carpentry, lumber, and hardware . . . . .	21,567 51
Salaries . . . . .	13,258 45
Masonry, whitening, paving, and drains . . . . .	14,872 10
Painting and glazing . . . . .	7,591 70
Janitors' care and cleaning . . . . .	11,197 89

*Carried forward,*

**\$97,858 86**

<i>Brought forward,</i>	\$97,858 86
Plumbing . . . . .	14,728 92
Gas and electric light fixtures . . . . .	2,274 64
Gas . . . . .	2,277 87
Electric lighting . . . . .	7,763 02
Heating and ventilation . . . . .	3,742 77
Fuel . . . . .	3,121 35
Furniture, safes, etc. . . . .	15,686 01
Roofing, gutters, and conductors . . . . .	3,222 46
Bells, locks, awnings, and supplies . . . . .	4,203 64
Iron and wire work . . . . .	1,205 41
Water and ice . . . . .	1,862 02
Board and shoeing of horses, repairs of carriages and harness, car and ferry tickets, etc.,	899 74
Advertising, printing, and telephone . . . . .	777 13
Auxiliary fire-alarm boxes, rental of . . . . .	439 97
Carting and the watering of streets . . . . .	1,397 00
Tiling and marble-work . . . . .	1,882 48
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	<b>\$163,343 29</b>

## COUNTY BUILDINGS.

Rents . . . . .	\$17,700 88
Janitors' care, cleaning, and supplies . . . . .	14,955 34
Furniture and furnishings . . . . .	2,920 93
Electric light . . . . .	5,139 39
Fuel, water, and ice . . . . .	3,804 60
Gas . . . . .	1,340 32
Gas and electric-light fixtures . . . . .	480 98
Carpentry, masonry, and roofing . . . . .	5,092 03
Heating and plumbing . . . . .	1,288 32
Bells, locks, and ironwork . . . . .	279 47
Telephone, printing, etc. . . . .	500 95
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	<b>\$53,503 21</b>

## SCHOOL-HOUSES, PUBLIC BUILDINGS.

Heating-apparatus and ventilation . . . . .	\$38,390 81
Carpentry, lumber, and hardware . . . . .	38,967 39
Masonry, paving, drains, etc. . . . .	24,009 69
Painting and glazing . . . . .	25,253 18
Furniture . . . . .	37,515 44
Plumbing and gas-fitting . . . . .	18,123 28
Whitening and plastering . . . . .	9,283 71

*Carried forward,***\$191,543 50**

<i>Brought forward,</i>	\$191,543 50
Rents and taxes . . . . .	12,682 56
Salaries . . . . .	8,732 00
Roofing, gutters, and conductors . . . . .	9,206 14
Locks and bells . . . . .	1,406 76
Iron and wire work . . . . .	2,225 93
Blackboards . . . . .	4,240 29
Cartage, care of lawns . . . . .	2,493 17
Cleaning vaults . . . . .	918 00
Cleaning, supplies, etc. . . . .	3,493 82
Boarding, shoeing two horses, repairs of carriages and harness . . . . .	1,176 55
Rent and care of auxiliary fire-alarm boxes . . . . .	3,164 03
Printing, stationery, and advertising . . . . .	148 33
Asphalt . . . . .	1,368 29
Weather strips and sash elevators . . . . .	1,531 25
Flag-staffs, repairs . . . . .	269 55
Watering streets . . . . .	3,328 00
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	<b>\$247,928 17</b>

## ARMORIES.

Rents and taxes . . . . .	\$16,481 73
Heating-apparatus, gas-fitting, and plumbing . . . . .	422 80
Furniture and furnishings . . . . .	544 89
Fuel . . . . .	938 47
Gas and electric lighting . . . . .	1,719 38
Care, cleaning, supplies, and teaming . . . . .	1,050 00
Water-rates . . . . .	191 67
Repairs, masonry, carpentry, painting, etc. . . . .	1,512 09
Rent of ground for rifle practice . . . . .	1,484 80
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	<b>\$24,345 83</b>

## ELECTION EXPENSES.

Salaries . . . . .	\$3,087 50
Rents . . . . .	6,800 50
Janitors . . . . .	5,585 27
Carpenter-work . . . . .	8,515 90
Heating and lighting . . . . .	1,151 87
Horse-hire, etc. . . . .	709 63
Insurance . . . . .	222 50
Gas-fitting, painting, and furniture . . . . .	1,989 71
Teaming and supplies . . . . .	2,395 65
Printing, stationery, postage, messenger, etc., . . . . .	233 63
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	<b>\$30,692 16</b>

## INCOME.

The following are the buildings from which rents have been received during the past year, together with the amounts, all of which are in charge of this department :

Faneuil-Hall market and cellars . . . . .	\$67,243 00
Faneuil-Hall building, stalls, and cellars under	
Faneuil Hall . . . . .	17,671 00
Old State House . . . . .	10,000 00
Quincy Hall . . . . .	2,500 00
House, 94 Roxbury street . . . . .	300 00
Stable, Charlestown District . . . . .	150 00
Curtis Hall . . . . .	250 00
Ward-rooms . . . . .	650 00
Rotunda and offices, Quincy Hall . . . . .	2,700 00
Engine-house lot, Soley street . . . . .	150 00
Heating Old State House . . . . .	125 00
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	<b>\$101,739 00</b>

The following list will show the number and location of buildings belonging to and hired by the city, which are under the charge of this department.

Respectfully submitted,

JAMES C. TUCKER,  
*Superintendent of Public Buildings.*

## PUBLIC BUILDINGS.

Buildings.	Location.	No. of ft. in lot.	Remarks.
City Hall . . . . .	School st. . . . .	25,915	
City Hall . . . . .	City sq., Charles- town . . . . .	8,246	Police Station No. 15 in this building; also branch of the Public Library, and Municipal Court and Evening Drawing School. Police-wagon stable on this lot.
Faneuil Hall and market under same . . . . .	Faneuil Hall sq. . . . .	8,480	
Faneuil-Hall market-house, and hall over same . . . .	North and South Market sts. . . .	27,400	
Old State House . . . . .	State st. . . . .	4,239	
South city stables . . . . .	Albany st. . . . .	90,730	Four buildings and four sheds.
Highland-st. stables . . . .	Highlands . . . .	81,082	Three buildings. Damaged by fire Jan. 8, 1889.
West city stables . . . . .	North Grove st. . .	23,360	Two buildings.
Curtis Hall . . . . .	South st., W.R. . .	49,907	Branch of Public Library and Ward-room 23 in this building.
Offal depot, wharf, and dock . . . . .	Albany st. . . . .	39,511	
Storehouse . . . . .	Wareham st. . . .	8,500	
Old Armory Building . . . .	Maverick st. . . .	4,337	Ward-room 2 in this building, and Post 159, G.A.R.
Reception house . . . . .	North Grove st. . .	11,792	
Paving Dept. yard . . . . .	Commercial street, Ward 24 . . . . .	109,444	Four buildings occupied by Paving Department, and one for school purposes.
House and land . . . . .	Roxbury st. . . . .	4,190	Rents for \$300 per annum.
Central Charity Bureau . . .	Chardon st. . . .	19,962	Boiler and storehouse on lot.
City Temporary Home . . . }			
Town Hall . . . . .	Washington street, Dorchester . . .	16,800	Used for drill-hall, Dor. High School.
Stable . . . . .	Rutherford ave. . .	17,300	Two buildings occupied by Health Department.
Ward-room 19 . . . . .	Cabot st. . . . .	7,469	
Wayfarers' Lodge . . . . .	Hawkins st. . . . .	9,523	Ward-room 7 in this building.
Church building . . . . .	Corner Dudley and Vine sts. . . . .	11,592	Ward-room 20 in this building, and Vine-st. chapel on this lot.
Old Franklin School-house, . .	Washington st. . . .	11,888	Ward-room 16, Inspector of Milk, Posts 15 and 7, G.A.R., in this building. Lease expires July 1, 1892.

PUBLIC BUILDINGS. — *Concluded.*

Buildings.	Location.	No. of ft. in lot.	Remarks.
<sup>1</sup> Old Winthrop School-house	Bunker Hill street, Charlestown . .	7,927	Armory and Ward-room 3 in this building.
Stable . . . . .	Chauncey pl. . . . .		Rents for \$150 per year, on lot with Chauncey-pl. School.
Storehouse . . . . .	Chauncey pl. . . . .		On lot with Chauncey-pl. School.
Francis-st. School-house .	Roxbury . . . . .	12,074	Unoccupied.
Wilson's Hotel estate . . .	Washington street, Brighton . . . .	75,100	Reserved for site of Police Sta- tion 14 and Court House.
<sup>1</sup> Smith School-house . . .	Joy st. . . . .	1,938	Leased to Post 134, G.A.R., from Jan. 1, 1888, to Jan. 1, 1893.
<sup>1</sup> Engine-house lot . . . . .	Soley st. . . . .	2,230	Rents for \$150 per annum.

<sup>1</sup> The above buildings were surrendered to this department as not wanted for school or fire purposes.

In addition to the foregoing, the following property is leased for the use of this department :

Location of Buildings.	Rent.	No. of Rooms.	Occupied by
7 Pemberton square . . .	\$4,725 per year . .	Whole building,	Police Commissioners and Police Department.
12 Beacon street . . . . .	\$10,000 per year and taxes.	Whole building,	Registrars of Voters.
			Board of Health.
			Street-cleaning division of Street Department.
			Sanitary Police Dept.
			Truant Officers' Dept.
14 Beacon street . . . . .		Whole building,	Commissioners of Public Institutions.
			Law Department.
			Sewer Department (Engineer's office).
			Bridge division of Street Department.
			Street-numbering division of Street Dept.
			Street-sprinkling division of Street Department.
74 Tremont street . . .	\$1,800 per year . .	5	Board of Fire Commissioners.
28 School street . . . . .	\$850 per year . .	2	Department for the Inspection of Wires.
Exchange Building . . .	\$2,000 per year . .	3	Park Commissioners.
Exchange Building . . .	\$3,185 per year . .	5	Board of Survey.
Niles Building . . . . .	\$2,000 per year . .	3	Department of Public Buildings.

## ARMORIES.

The following list will show the location and rents of all armories, Feb. 1, 1892, in charge of this department :

Occupied by	Rent per annum.	Location of Armories.
Headquarters, First Brigade . . . .	\$500	19 Milk street.
" Second " . . . .	900	37 Tremont street.
Company A, Fifth Regiment . . .	1,200	Congress Hall, Charlestown.
" H, " " . . .	City building.	Winthrop street, Charlestown.
" L, Sixth " . . .	\$1,085	7 Green street. Lease expires Feb. 1, 1893.
" D, Ninth " . . .	City building.	Banker Hill street.
" A, First Batt. of Cavalry,	City building.	Bulfinch street.
" D, " " "	\$1,200	Bacon's Hall.
" A, " Corps of Cadets,	\$3,600	130 Columbus avenue.
" B, " " "		
" C, " " "		
" D, " " "		
" A, " Batt. Light Art.,	\$2,300 and taxes.	West Newton and Pembroke streets. Lease expires Jan. 1, 1897.



## COUNTY BUILDINGS.

Buildings.	Location.	No. of ft. in lot.	Remarks.
Court House . . . . .	Court sq. . . . .	15,175	The following city departments occupy rooms in this building: Sealers Weights and Measures, shutting off and letting on Water Department, Meter Inspectors, Probation Office, Board of Survey, Registrar of Births, Deaths, and Marriages, and office for Licensed Minors.
Registry of Deeds and Probate Office . . . . .	Court sq. . . . .	2,423	
Jail . . . . .	Charles st. . . . .	130,740	Three buildings.
Municipal Court, Southern District . . . . .	Roxbury st. . . . .	14,390	Evening Drawing School in this building.
Municipal Court, E. Boston,	High School Building.		
“ “ S. Boston,	Corner Dorchester and West Fourth sts.		
“ “ Charlestown,	City sq.		
“ “ Brighton .	Washington st.		
“ “ W. Roxb'y	Station-house 13.		
“ “ Dorchester,	“ “ 11.		

Rooms are hired in Suffolk Savings-bank Building for Registry of Deeds, at a rental of \$300 per year.

Building hire of Massachusetts Historical Society for Registry of Deeds, at a rental of \$10,000 per year.

## POLICE STATION-HOUSES.

	Location.	No. of feet in lot.	Remarks.
No. 1 . . .	Hanover st. . . . .	6,188	
2 . . .	Court sq. . . . .	2,029	
3 . . .	Joy st. . . . .	6,100	
4 . . .	La Grange st. . . . .	5,150	
5 . . .	East Dedham st. . . . .	3,303	Addition built in 1894.
6 . . .	West Broadway . . . . .	4,253	Police-wagon stable in this house.
7 . . .	Meridian st. . . . .	3,773	
8 . . .	Commercial st. . . . .	5,323	Harbor Police-station.
9 . . .	Dudley st. . . . .	6,797	Police-wagon stable on this lot.
10 . . .	Pyncheon st. . . . .	6,380	
11 . . .	Adams st., Ward 24 . . . .	7,500	Court-room, Surveyor's office, and branch of Public Library in this building.
12 . . .	East Fourth st., near K st. .	7,217	
13 . . .	Seaverns ave., corner Maple place, W. Roxbury . . . .	5,241	Municipal Court, W. Roxbury Dis- trict, in this building.
14 . . .	Washington st., Brighton .	13,431	Municipal Court, Brighton District, in this building.
15 . . .	City Hall, Charlestown.		
16 . . .	Boylston st. . . . .	10,486	
Lock-up .	Washington st., Ward 24 . .	1,580	
"	Walnut st., Neponset . . . .	1,476	
"	Centre st., W. Roxbury . . . . .		In old engine-house.
"	Mattapan . . . . .		Hired at rental of \$150 per year.
Police- quarters.	Washington st., bank build- ing, Dorchester . . . . .	11,640	Branch public library in this build- ing.

## ENGINE-HOUSES.

	Location.	No. of feet in lot.	Remarks.
No. 1 . . .	Dorchester st. . . . .	5,698	Addition built 1874. Municipal Court, Ward-room 15, and two classes, branch of Bigelow School in this building.
2 . . .	East Fourth st. cor. O . . .	4,000	
3 . . .	Harrison ave., cor. Bristol st.,	4,000	H. & L. No. 3 in this building.
4 . . .	Bulfinch st. . . . .	6,098	Lancer's Armory, Chemical Engine No. 1 and Water Tower in this building.
5 . . .	Marion st., E.B. . . . .	1,647	
6 . . .	Leverett st. . . . .	2,260	
7 . . .	East st. . . . .	1,893	
8 . . .	Salem st. . . . .	2,568	
9 . . .	Paris st., E.B. . . . .	4,000	H. & L. No. 2 in this building.
10 . . .	Mt. Vernon st. . . . .	1,866	
11 . . .	Saratoga st. . . . .	10,000	
12 . . .	Dudley st. . . . .	7,320	
13 . . .	Cabot st. . . . .	4,832	
14 . . .	Centre st. . . . .	5,718	
15 . . .	Dorchester ave. . . . .	2,843	
16 . . .	River st., D.D. . . . .	12,736	H. & L. No. 6 in this building.
17 . . .	Meeting-house Hill, D.D. . . . .		On lot with Mather School-house.
18 . . .	Harvard st., D.D. . . . .	10,225	Old Engine-house on this lot.
19 . . .	Norfolk st., D.D. . . . .	7,683	
20 . . .	Walnut st. . . . .	9,000	
21 . . .	Boston st., D.D. . . . .	9,354	
22 . . .	Dartmouth st. . . . .	4,463	
23 . . .	Northampton st. . . . .	3,445	
24 . . .	Cor. Warren and Quincy sts.	4,186	
25 . . .	Fort Hill sq. . . . .	4,176	H. & L. No. 8, H. & L. No. 14, and hose and harness shop in this building.
26 . . .	Mason st. . . . .	5,623	Engine Co. 35 in this building.
27 . . .	Elm st., Charlestown . . .	2,600	
28 . . .	Centre st., West Roxbury .	10,377	H & L. No. 10 in this building.
29 . . .	Chestnut Hill ave., Brighton,	14,358	H. & L. No. 11 in this building.
30 . . .	Mt. Vernon st., W. Roxbury,	16,275	
32 . . .	Bunker Hill st. . . . .	8,188	
33 . . .	Boylston st. . . . .	5,646	H. & L. No. 15 in this building.

ENGINE-HOUSES.— *Concluded.*

	Location.	No. of feet in lot.	Remarks.
No. 34 . . .	Western ave., Brighton . . .	4,637	
36 . . .	Monument st. . . . .	5,688	Hose No. 4 in this building.
37 . . .	Cor. Longwood and Brook- line ave. . . . .	5,400	Chemical Engine No. 3 in this build- ing.
38 . . .	Congress st. . . . .	4,000	Engine Co. 39 in this building.
40 . . .	Sumner st. . . . .	4,010	

## CHEMICAL-ENGINE HOUSES.

	Location.	No. of feet in lot.	Remarks.
No. 2 . . .	Church st. . . . .	3,412	
4 . . .	Poplar st., cor. Washington, West Roxbury . . . . .	14,729	H. & L. No. 16 in this building.
5 . . .	Washington st., between Ath- erton and Beethoven sts. .	3,848	
6 . . .	Harvard ave., Brighton . . .	6,112	
7 . . .	Chelsea st. . . . .	1,346	
8 . . .	B st., South Boston . . .	1,804	
10 . . .	Eustis st. . . . .	1,754	

## HOSE-HOUSES.

	Location.	No. of feet in lot.	Remarks.
No. 3 . . .	Winthrop st. . . . .	3,000	Charlestown.
5 . . .	Shawmut ave. . . . .	889	
7 . . .	Tremont st. . . . .	4,350	H. & L. No. 12 in this building.
8 . . .	North Grove st. . . . .	3,918	
10 . . .	Dorchester st., Washington Village . . . . .	1,610	
12 . . .	East Fourth st. . . . .	3,101	

## HOOK-AND-LADDER HOUSES.

	Location.	No. of feet in lot.	Remarks.
No. 1 . . .	Friend st. . . . .	1,676	
4 . . .	Cor. Winalow and Dudley sts.	3,923	
5 . . .	West Fourth st. . . . .	2,469	
7 . . .	Meeting-house Hill . . . . .		On lot with Mather School-house.
9 . . .	Main st., Charlestown . . .	4,290	Chemical Co. No. 9 in this building.
13 . . .	Washington st., near Dover,	1,007	
17 . . .	Harrison ave. . . . .	2,134	

MISCELLANEOUS. — *Fire Department.*

	Location.	No. of feet in lot.	Remarks.
Repair-shop . . . . .	Albany st. . . . .	20,547	{ Fire Dept. repair-shop. Fire-alarm telegraph re- pair-shop.
Stable and storehouse .	Bristol st. . . . .		
Fuel-house . . . . .	Salem st. . . . .	417	
Fuel-house . . . . .	Main st., Charlestown,	2,430	Upper part leased to Post 149, G.A.R., from April 1, 1888, to April 1, 1893.
Engine-house . . . . .	Centre st. . . . .	1,623	Lock-up in this building.
Lot, Headquarters . . .	Bristol st. . . . .	3,116	
Lot, Engine-house . . .	Andrew sq. . . . .	5,133	

## POUNDS.

Albany street.	South street, Ward 23.
Ashley ave., Breed's Island,	Highland st., Almshouse lot.
East Boston.	Almshouse lot, Ward 24.
First street, South Boston.	Town-house lot, Ward 25.

## SCHOOL-HOUSES.

Name.	Location.	No. feet in lot.	When built.	No. of rooms.	Remarks.
Allston . . . . .	Cambridge st. .	22,000	1878	10 and hall.	
Adams . . . . .	Sumner st. . . .	21,000	1856	13 and hall.	
Atherton . . . . .	Columbia st., Ward 24 . . . .	25,087	1872	8	
Adams st. . . . .	Dorchester . . .	44,555	1861	2	
Avon place . . . .	Highlands . . .	10,057	1851	4	
Andrews . . . . .	Genesee st. . . .	5,393	1848	3	
Austin . . . . .	Paris street . . .	5,360	1849	6	
Agassiz . . . . .	Brewer st., W.R.,	33,518	. . .	6	
Auburn . . . . .	School st., Br. .	12,340	. . .	4	
Appleton st. . . .	Appleton st. . .	18,454	1870	12	
Baker st. . . . .	West Roxbury . .	10,464	. . .	1	
Bowdoin . . . . .	Myrtle st. . . . .	4,892	1848	8	
Bailey st. . . . .	Dorchester . . .	21,838	1880	4	
Bennett . . . . .	Chestnut Hill ave.	26,648	1874	7 and hall.	
Bennett Branch . .	Dighton place . .	9,605	1886	6	
Bigelow . . . . .	West Fourth st.,	12,660	1850	14 and hall.	
Benjamin Pope . .	O st. . . . .	20,000	1888	8	
Brimmer . . . . .	Common st. . . .	11,081	1843	14 and hall.	
Bunker Hill Gr. . .	Baldwin st., Ch. }	19,660	. . .	{ 14 and hall	Ward-room 4 in this building.
" " Pr. . . . .	Bunker Hill st. }			{ 8	
Baldwin . . . . .	Chardon court . .	6,139	1864	6	
Breed's Island . .	Leyden st., E.B.,	24,000	1888	2	
Bowditch . . . . .	Green st. . . . .	23,555	1891	12 and hall.	
Bowditch, Old . .	Elm st., W.E. . .	18,613	. . .	6	
Cyrus Alger . . . .	West Seventh st.,	16,560	1880	8	
Chapman . . . . .	Eutaw st. . . . .	20,500	1850	13 and hall.	Addition built in 1882. Ward-room 1 in this building.
Chas. Sumner . . .	Ashland st., W.R.	30,000	1877	10 and hall.	
Comins . . . . .	Tremont st. . . .	22,169	1856	13 and hall.	
Canterbury st. . .	West Roxbury . .	20,121	. . .	2	
Child st. . . . .	West Roxbury . .	26,374	. . .	2	
Cottage place . . .	Highlands . . . .	13,500	1859	4	
Cook . . . . .	Groton street . .	8,177	1852	6	
Chauncey place . .	Charlestown . . .	7,410	. . .	1	Stable and storehouse on this lot.
Cross st. . . . .	Charlestown . . .	1,708	. . .	2	
Common st. . . . .	Charlestown . . .	7,001	. . .	6	

SCHOOL-HOUSES. — *Continued.*

Name.	Location.	No. feet in lot.	When built.	No. of rooms.	Remarks.
Cushman . . . .	Parmenter st. . . . .	1867	16		On lot with Hancock.
Chestnut ave. . .	West Roxbury . . . .	13,733	2		
Clinch . . . . .	F st. . . . .	13,492	1871	6	
Capen . . . . .	East Sixth st. . . . .	12,354	1871	6	
Dwight Gr. . . .	W. Springfield st. . . .	19,125	1857	14 and hall.	
Dillaway Gr. . .	Kenilworth st. . . . .	21,220	1882	12 and hall.	
Dudley . . . . .	Dudley st. . . . .	26,339	1874	14 and hall.	
Dearborn . . . .	Dearborn court . . . .	36,926	1862	14 and hall.	
Dwight Pr. . . .	Rutland st. . . . .	7,850	1861	6	
Drake . . . . .	C. st. . . . .	10,260	1869	6	
Ellot . . . . .	N. Bennet st. . . . .	11,077	1838	14 and hall.	
Edward Everett .	Sumner st., Ward 24 . . . . .	43,738	1876	10 and hall.	Old Everett School-house on this lot.
Everett . . . . .	Camden st. . . . .	32,409	1860	14 and hall.	
Everett . . . . .	Pearl st., Br. . . . .	44,237	2		
Emerson . . . . .	Poplar st. . . . .	5,924	1861	6	
Eustis st. . . . .	Boston Highl'ds, . . . .	13,534	1848	4	
Emerson, E.B. . .	Prescott st. . . . .	89,952	1865	16 and hall.	
Florence . . . .	Florence st., W.R. . . . .	25,030	6		Addition built 1890.
Franklin . . . .	Ringgold st. . . . .	16,439	1869	14 and hall.	Ward-room 17 in this building.
Freeman . . . .	Charter st. . . . .	5,247	1868	6	
Frothingham . .	Prospect st., Charlestown . . . .	22,079	1874	16 and hall.	
Gibson . . . . .	School st., Ward 24 . . . . .	44,800	1867	6	
Glen road . . . .	Ward 24 . . . . .	25,827	1880	2	
Gaston . . . . .	East Fifth, cor. L st. . . . .	35,358	1872	14 and hall.	Damaged by fire April 28, 1887.
George st. . . .	Highlands . . . . .	18,894	1861	6	
George Putnam .	Seaver st. . . . .	33,750	1880	10 and hall.	
Green st. . . . .	West Roxbury . . . . .	2			
Grant . . . . .	Phillips st. . . . .	3,744	1852	4	
Haverhill st. . }	Charlestown . . . .	5,399	1	1	
" " . }					
Harvard Gr. . . .	Bow st., Ch. . . . .	16,306	1874	14 and hall.	
Howe . . . . .	West Fifth st. . . . .	12,494	1874	8	
High and Latin .	Dartmouth and Montgomery sts. and Warren ave. . . .	85,560	1877	78 & 3 halls.	South End Branch of Public Library in this building.

SCHOOL-HOUSES. — *Continued.*

Name.	Location.	No. feet in lot.	When built.	No. of rooms.	Remarks.
Hyde . . . . .	Hammond st. . .	20,754	1884	14 and hall.	
High . . . . .	Monum't sq., Ch.	10,247	. . .	10 and hall.	
Harvard Pr. . . .	Harvard st., Ch. .	4,645	. . .	8	Ward-room 6 in this building.
Hancock . . . .	Parmenter st. . .	28,197	1847	14 and hall.	Cushman School-house on this lot.
High, Girls' . . .	West Newton st.,	30,454	1870	66 and hall.	The number of rooms include those for recitation and apparatus.
High . . . . .	Warren st. . . .	25,617	1891	19 and hall.	The number, etc., same as Girls' High.
High . . . . .	Elm st., W.R. . .	32,262	. . .	6	.
High . . . . .	Dorchester ave., Ward 24 . . . .	59,840	1870	6 and hall.	
High . . . . .	Meridian st. . .	13,616	1846	6 and hall.	Library and court-room in this building.
High . . . . .	Chestnut Hill av., Br. . . . .	54,488	. . .	5 and hall.	
Harris . . . . .	Adams st., Ward 24 . . . . .	37,160	1861	8 and hall.	
Harbor View st..	Dorchester . . .	27,808	1883	4	
Howard ave. . .	Mt. Pleasant . .	29,090	1882	6	
Horace Mann . .	Newbury st. . .	8,400	1889	18 & 2 halls.	
Harvard . . . .	N. Harvard st., Br. . . . .	20,750	. . .	4	
Hobart st. . . .	Brighton . . . .	10,000	1884	2	
Hawes . . . . .	West Broadway,	16,647	1823	8	Simonds School-house on this lot.
Hugh O'Brien . .	Dudley st. . . .	36,954	1887	14 and hall.	
Heath st. . . .	Highlands . . .	10,669	1857	2	
Henry L. Pierce .	Washington st., betw'n Welles ave. and Walton st. . . . .	66,342	1891	12 and hall.	
Henry L. Pierce, Old . . . . .	Thetford ave. . .	29,879	1875	4	
Ingraham . . . .	Sheafe st. . . .	2,354	1848	3	
Joshua Bates . .	Harrison ave. . .	15,237	1884	8	
John A. Andrew,	Dorchester st. .	24,889	1876	16 and hall.	
Lawrence . . . .	B and W. Third sts. . . . .	14,343	1856	14 and hall.	
Lincoln . . . . .	East Broadway .	24,500	1859	14 and hall.	
Lyman . . . . .	Paris st. . . . .	26,200	1870	14 and hall.	Rebuilt, 1872.
Lewis . . . . .	Sherman st. . .	27,850	1868	12 and hall.	
Lowell . . . . .	Centre st. . . .	35,241	1874	14 and hall.	
Lucretia Crocker,	Parker st. . . .	30,000	1884	8	



SCHOOL-HOUSES. — *Continued.*

Name.	Location.	No. feet in lot.	When built.	No. of rooms.	Remarks.
Lyceum Hall . .	Meeting-House Hill . . . . .	26,000	. . .	6	Remodelled for school purposes in 1891.
Martin . . . . .	Huntington ave.,	30,000	1885	14 and hall.	
Mather . . . . .	Meeting-house Hill, Dor. . .	132,500	1872	10 and hall.	H. & L. No. 7, Eng.-house 17, and Old Mather School-house on this lot.
Minot . . . . .	Neponset ave. .	31,500	1885	7 and hall.	
Moulton street .	Charlestown . .	8,130	. . .	4	
Munroe street . .	Highlands . . .	11,910	1854	2	
Mather . . . . .	West Broadway, S.B. . . . .	10,160	1842	12	
Mead st. . . . .	Charlestown . .	5,857	1847	4	
Medford st. . . .	Charlestown . .	12,112	1886	4	
Mt. Pleasant ave.,	Highlands . . .	9,510	1847	2	
Mt. Vernon . . .	Mt. Vernon st., Ward 23, W.R.,	22,744	. . .	4 and hall.	
Norcross . . . .	D st. . . . .	12,075	1868	14 and hall.	
N. Margin st. . .	N. Margin st. . .	1,661	1837	2	
Noble . . . . .	Princeton st. . .	17,500	1874	8	
Oak sq. . . . .	Brighton . . . .	9,796	. . .	2	
Old High . . . .	Dorchester ave., Ward 24 . . .	34,460	. . .	4	
Old High . . . .	Kenilworth st.,	6,090	1861	8	
Old Everett . . .	Sumner st., Ward 24 . . .	. . . .	1855	7	On lot with Edw. Everett.
Old Dillaway . .	Bartlett st. . . .	7,627	1846	6	
Old Mather . . .	Meeting-house Hill, Dor. . .	. . . .	1856	6	On lot with Mather School-house.
Old Minot . . . .	Walnut st., Ward 24 . . .	22,790	1856	7	
Phillips . . . . .	Anderson st. . .	11,190	1862	14 and hall.	
Prescott . . . .	Elm st., Charles- town . . . . .	16,269	. . .	10 and hall.	
Prince . . . . .	Newbury st. . .	22,960	1875	12 and hall.	
Prince Pr. . . . .	St. Botolph st. .	16,000	1891	8 and hall.	
Pierpont . . . .	Hudson st. . . .	4,216	1850	4	
Phillips st. . . .	Highlands . . .	20,355	1867	8	Ward-room 22 in this building.
Polk st. . . . .	Charlestown . .	12,143	1878	6	
Formort st. . . .	Snelling pl. . . .	4,373	1855	6	
Poplar st. . . . .	West Roxbury .	7,842	. . .	1	

SCHOOL-HOUSES. — *Continued.*

Name.	Location.	No. feet in lot.	When built.	No. of rooms.	Remarks.
Plummer . . . .	Lamson and Sum- ner sts. . . . .	21,878	1891	10 and hall.	
Parkman . . . .	Silver st. . . . .	5,806	1848	6	
Quincy st. . . .	Highlands . . . .	23,453	1875	8	
Quincy st. Pr. . .	Dorchester . . . .	20,000	1892	2	
Quincy . . . . .	Tyler st. . . . .	12,413	1847	14 and hall.	
Rice Gr. . . . .	Dartmouth st. . .	27,125	1869	14 and hall.	Damaged by fire Dec. 20, 1875.
Rice Pr. . . . .	W. Concord st. . .	10,756	1846	10	Ward-room, Ward 18, in this building.
Roxbury st. . . .	Highlands . . . .	14,147	1874	8	
Shurtleff Gr. . .	Dorchester st. . .	40,653	1869	14 and hall.	
Sherwin . . . . .	Madison sq. . . .	32,040	1870	16 and hall.	
Stoughton . . . .	River st, Wd. 24,	29,725	1856	8	
Simonds . . . . .	W. Broadway . . . .		1840	3	On Hawes School-house lot.
Shurtleff Pr. . .	Tyler st. . . . .	3,900	1855	6	
Sharp . . . . .	Anderson st. . . .	5,611	1824	6	Ward-room, Ward 9, in this building.
Smith st. . . . .	Comins branch . .	6,952	1849	2	
Somerset st. . . .	Ward 10 . . . . .	6,300	1824	4	
Savin-Hill ave. .	Dorchester . . . .	20,060	1884	2	
School Committee building . . . . .	Mason st. . . . .	7,148	. . .	12 and hall.	Ward-room, Ward 10, in this building.
Starr King . . . .	Tennyson st. . . .	11,095	1870	10 and hall.	
Skinner . . . . .	Fayette st. . . . .	5,238	1870	6	
Thomas N. Hart . .	East Fifth st . . .	37,741	1899	13 and hall.	This includes 11,477 feet in lot, but not enclosed in school yard.
Tileston . . . . .	Norfolk st., Wd. 24 . . . . .	83,640	1868	8 and hall.	
Ticknor . . . . .	Washington Vil.,	11,486	1865	12	
Tuckerman . . . .	East Fourth st. . .	11,655	1850	6	
Tappan . . . . .	Lexington st. . . .	11,500	. . .	8	
Thomas st. . . . .	West Roxbury . . .	10,754	. . .	3	
Thornton st. . . .	Highlands . . . . .	6,640	1847	2	
Union st. . . . .	Brighton . . . . .	67,280	. . .	2	
Vernon st. . . . .	Highlands . . . . .	7,675	1849	4	
Winthrop . . . . .	Tremont st. . . . .	16,100	1855	14 and hall.	
Wells . . . . .	Blossom st. . . . .	10,770	1868	10 and hall.	Ward-room, Ward 8, in this building.
Warren . . . . .	Summer st., Charlestown . . . .	14,322	. . .	14 and hall	
Webb . . . . .	Porter st. . . . .	7,492	1853	6	

SCHOOL-HOUSES. — *Concluded.*

Name.	Location.	No. feet in lot.	When built.	No. of rooms.	Remarks.
Webster st. . . .	E. Boston . . .	5,036	1852	6	Addition built in 1885.
Webster . . . .	Webster ave., Br.	19,761	. . .	4	
Ware . . . . .	N. Bennett st. .	6,439	1852	4	
Winchell . . . .	Blossom st. . .	13,540	1885	12	
Walt . . . . .	Shawmut ave. .	16,341	1860	8	Ward-room, Ward 6, in this building.
Washington st., near Glen road,	West Roxbury .	12,491	. . .	2	
Washington st., near Forest Hills station .	West Roxbury .	27,450	. . .	2	
Winthrop st. . .	Highlands . . .	9,775	1857	4	
Walpole st. . . .	Roxbury . . . .	8,082	1865	4	Branch of Public Library in this building.
Way st. . . . .	Ward 16 . . . .	2,508	1850	3	
Weston st. . . .	Highlands . . .	14,973	1877	8	
Washington st. .	Germantown, W.R. . . . .	13,130	. . .	2	
Westerly Hall . .	Centre st. . . .	5,644	. . .	2	
Winship . . . .	Dighton pl. . . .	34,366	. . .	4	
Yeoman st. . . .	Highlands . . .	18,200	1870	12	

In addition to the foregoing, the following rooms were occupied by schools, at a rental of \$12,682.56 :

No. of Rooms.	Location.
One . . . . .	Day's chapel, Parker street.
One . . . . .	400 Bunker Hill street, Charlestown.
One . . . . .	Carey Hall, West Roxbury.
Five . . . . .	Drawing School, East Boston.
Two . . . . .	River street, Lower Mills.
One . . . . .	203 and 205 Green street, Jamaica Plain.
<sup>1</sup> One . . . . .	Bacon's Hall.
Two . . . . .	Armandine street, Dorchester.
One . . . . .	Stanton-avenue church, Dorchester.
One . . . . .	Boylston chapel, West Roxbury.
Two . . . . .	Armandine street, Dorchester.
One . . . . .	Room 4, Field's building, Dorchester.
Two . . . . .	Bickford and Centre streets.
<sup>1</sup> One . . . . .	Roslindale M.E. church.
One . . . . .	705 Centre street.
Two . . . . .	Fallon building, Centre street.
Three . . . . .	Pierce building, Copley square.
Three . . . . .	Barnard Memorial building, Warrenton street.
Two . . . . .	School street, Roxbury.
Two . . . . .	Green street, near Brookside avenue.
<sup>1</sup> One . . . . .	Masonic building, Roslindale.
Two . . . . .	Maverick chapel, E.B.
One . . . . .	Workingmen Building Association.
<sup>1</sup> One . . . . .	Curtis block, Roxbury.
Four . . . . .	Dahlgren Memorial Hall Association.
Four . . . . .	7 Bryant court.

<sup>1</sup> These have been given up.

The following lots of land have been bought for school purposes :

Vernon and Auburn streets, Roxbury, 9,581 feet of land.

Harold and Homestead streets, Roxbury, 26,145 feet of land.

Wyman street, Jamaica Plain, 31,577 feet of land.

Glen Road street, Forest Hills, 14,252 feet of land.

Breed's Island, East Boston, 5,166 feet of land.

Cambridge street, Charlestown, 16,727 feet of land.

Burroughs street, 8,726 feet of land.  
Henshaw street, 40,000 feet of land.  
Belvidere street, 22,881 feet of land.  
Canterbury street, 34,266 feet of land.  
Thornton street, 11,000 feet of land.  
Leyden street, 5,166 feet of land.  
Gardner street, 30,000 feet of land.  
Mt. Bowdoin, 39,620 feet of land.  
Waverley street, 18,000 feet of land.  
Groton street, 1,275 feet of land.

## WARD-ROOMS.

The following list will show the location of the various ward-rooms in this city :

Ward.	Buildings.	Location.
Ward 1. . . . .	Chapman School-house . . . . .	Eutaw st.
2. . . . .	Armory building . . . . .	Maverick st.
3. . . . .	Old Winthrop School-house . . . . .	Bunker Hill st., Charlestown.
4. . . . .	Bunker Hill Grammar School-house, . . . . .	Baldwin st., Charlestown.
5. . . . .	Harvard Primary School-house . . . . .	Harvard st., Charlestown.
6. . . . .	Ware Primary School-house . . . . .	North Bennet st.
7. . . . .	Wanderers' Home . . . . .	Hawkins st.
8. . . . .	Wells School-house . . . . .	Blossom st.
9. . . . .	Sharp Primary School-house . . . . .	Andersen st.
10. . . . .	School Committee building . . . . .	Mason st.
11. . . . .	Prince School-house . . . . .	Newbury st.
12. . . . .	Public market building . . . . .	Washington st.
13. . . . .	Spelman Hall . . . . .	West Broadway.
14. . . . .	Gray's Hall . . . . .	East Broadway.
15. . . . .	Court-room, South Boston . . . . .	Dorchester and West Fourth sts.
16. . . . .	Old Franklin School-house . . . . .	Washington st.
17. . . . .	Franklin School-house . . . . .	Waltham st.
18. . . . .	Rice Primary School-house . . . . .	West Concord st.
19. . . . .	Bath-house . . . . .	Cabot st.
20. . . . .	Ward-room, old church building . . . . .	Vine, cor. Dudley st.
21. . . . .	Opera-house . . . . .	Dudley st.
22. . . . .	Primary School-house . . . . .	Phillips st.
23. . . . .	Curtis Hall . . . . .	South st., W. Roxbury.
24. . . . .	Dorchester Hall . . . . .	Field's Bldg., Field's Corner.
25. . . . .	Court-room . . . . .	Washington st., Brighton.

This department has in charge the various voting-precincts in the city, which number 205. Twice during the year said number of voting-places are to be obtained and made ready for election purposes.





ANNUAL REPORT  
OF THE  
DEPARTMENT OF PUBLIC GROUNDS,  
FOR THE YEAR 1891.

TO HON. NATHAN MATTHEWS, JR.,  
*Mayor of the City of Boston:*

DEAR SIR: In obedience to the requirements of the Revised Ordinances, I beg to present my report for the year ending Jan. 31, 1892, and in so doing I desire to call special attention to the detailed schedule of expenditures for the year, which will be found appended.

These facts and figures speak for themselves, and will be, I hope, duly appreciated.

Of the working condition and needs of the grounds under my charge I wish to offer my views and opinions. I should like to be brief, and will endeavor to be so, but spread out as my department is, it is really necessary that my report should cover the whole ground, in more or less of detail.

THE COMMON.

A great amount of work has been performed during the past year on the Common, in sodding the edges of the avenues trampled out by pedestrians, in seeking the grass to avoid the muddy beds of the gravel-walks. The repairing and



renovating the old walks, too, channelled out by every storm, is an ever-recurring expense which can only be abolished by concreting the walks, like those already done, and thus giving a decent footway, not only accommodating and pleasing the public, but saving the grass, and the expense of repairing, gravelling, etc.

This sodding has been a very expensive item to the department, for there is much more of it done than the ordinary observer would dream of. Many thousands of feet were required for the banks along Beacon and Park street malls to give it anything like a decent appearance; and the other thoroughfares, where the grass is thoughtlessly used as a footway, had to be sodded along the whole line, and away in and around the trees, to fill in the spaces that health and pleasure seeking individuals had left bare.

The superabundance of shade caused by the too-thickly studded trees, added to the expense by destroying the grass that comes within the radius of their outstretching branches.

But, after all, the Common, with all its natural productive powers, sadly needs a thorough overhauling. The soil is hard and impacted, throwing off the rain as it falls and the snow as it melts into the gutters and artificial channels, instead of absorbing and retaining them for future needs. The land, where practicable, really needs to be treated as practical farmers treat their fields under similar conditions. It should be broken up and thoroughly sub-soiled, thus bringing the soil into life and activity, and making it yield nourishment and moisture for the roots of trees and grass.

Besides, by subjecting the devitalized earth to the action of frost and sun, it becomes pulverized into a fibry, sweet, alluvial soil, capable of transmitting light, air, heat, and moisture — elements that are needed for the healthful growth of trees and grass. It is often difficult to convince, or even explain, to men in other pursuits of life, the need of such treatment of soil, but those who have been at any time engaged in agricultural pursuits will readily see the gist of my reasoning, and the necessity there is of breaking up this land to awaken a new life in it and renew its vitality. This improvement can be done by degrees.

It may be pertinent to state here that the work of sub-soiling should be done in the early fall; cross-ploughing, manuring, harrowing, and seeding down at as early a day in spring as possible, so that a handsome growth of young grass would be stout and thick enough to require the use of the lawn-mower by June 1.

## OLD TREES ON THE COMMON.

“ Woodman, spare that tree,  
Touch not a single bough;  
In youth it sheltered me,  
And I'll protect it now.”

To the great mass of people who traverse the Common from day to day, week in and week out, the numerous trees which line its walks appear to be all right, and if a few are noted which show unmistakable signs of decay, they are thought to be the exception, and not the rule. But this idea is erroneous, as about seventy-five per cent. of the older trees on the Common are in various stages of decay, some being as far advanced in this direction as to be dangerous, and liable at any moment, under pressure of a heavy wind, or the snow and ice of winter, to fall.

The public do not realize the exact condition of these trees, but I am fully aware of it, and have endeavored from time to time to lessen the dangers from this source by removing the dead limbs, and in some cases taking up the decayed and tottering trees. Last year I removed from the Beacon and Park street malls some fifteen of these old trees and replaced them with young, well-nourished, and vigorous trees, which are thriving well, and which in a few years will present a finer and more comely appearance than those which they have replaced.

But notwithstanding the imperative necessity of taking down the most decayed and dangerous of the old trees, there are many people who object to their removal. I do not blame the sentiment which would protect these old trees from vandal hands, especially when it has its origin in early associations, when the trees and their would-be protectors were young and strong. The old trees yet remaining have been carefully trimmed and pruned, and the living stock left in as good condition as intelligence and skill could place it, for I really do not wish to remove or cut down any of these old citizens as long as there is a vestige of vitality in them. Let them live out their length of days, and when there is need of it let us help to prolong their lives by what in human life would be called medical assistance. But when decay makes these trees unsafe and liable to fall at any time, then sentiment should give way to common-sense and public security, and the trees should come down.

The causes of the decay of many of the large elms, English and American, are want of nourishment and lack of water in the dry season of summer. Under forest conditions these trees would protect one another from drought by

means of their shade, and the leaves which they shed annually would yield the required nourishment to their roots. But the needs of a public park demand that the grass shall be kept cut under and around them, and in the fall the leaves which they shed must be raked up and carted away. Of course it is possible in planting a tree, in the first place, to give it a bedding of good, rich loam on which it will feed and flourish for an indefinite time; but if this has not been done, then it is not easy to supply the deficiency; and when decay once gets hold on a tree it is practically impossible to save it.

Some amateurs have recommended the "digging in of fertilizers around the trunks" of the trees, as an antidote for their affliction, which Lindley says, "would be like feeding a man through the soles of his feet." The day has gone by when either manure-heaps or apothecary shops can restore them to their original vitality, and hence the necessity of the system of removing the old trees from time to time and replacing them with young and vigorous successors.

#### THE FROG-POND.

The Frog-pond is an old Boston institution, and I feel that it would be a mistake not to mention it. This pond has not awakened during the past season any complaints on account of its malodorous gases, and has not aroused the senseless sensationists of the previous year (at least I have no *record* of it), when it was just as harmless, but perhaps little less pleasing to the sight, principally because dogs were allowed to bathe in it, and keep the mud and water mingled; but they were prohibited from doing so the past season. Still, the old pond sadly needs a bed of concrete instead of the rough and uneven cobble-stone with which it is now laid.

Even if for nothing more than its name and historic associations (for nobody will come to Boston and leave without visiting the Frog-pond), this little sheet of water should not only be given a solid, clean, and permanent bottom, but be connected with the main sewer, instead of emptying its waters, when drawn off, into the Public Garden pond. In my last report I said, with reference to this subject:

A word in regard to these two ponds and their relations. It should be known that they are so connected that when the Frog-pond is emptied its waters must pass into the pond of the Public Garden. The manifest stupidity of such an arrangement, the turning of the impure water of one pond into what may be the fresher and purer water of another, needs no comment from me. But it ought to be remedied at once, that is, as soon as the season allows for conducting the work. I should say in all probability the fine temperate days of the fall. A direct communication with the main sewer ought to be also established for both

ponds, so that they may be emptied independently and at such times as the exigencies arising from the condition of their nature call for such action.

I again recommend this as a needed improvement, and one that deserves the attention of all citizens who have a pride in our city and its time-honored places and institutions. I also desire to call special attention to the main drain extending from the Old Elm to the sewer on Charles street. It was made years ago of wood, with flag-stone covering. The wood has rotted and the drain has caved in to such an extent that the water oozes up through the parade-ground, and in the fall offensive, if not dangerous, gases are liberated. This will demand prompt attention in the early spring. A suitable drain to replace it—one that will be workmanlike and permanent—will entail an expenditure in the neighborhood of \$2,500.

Outside the ordinary expenses attending the care of the Common, there are in this department many others which are unknown to the taxpayers, but which yet entail considerable outlay. The various military, grand army, civic, and other parades, public preachers, weekly band concerts, and the crowds that they attract, as well as the Fourth of July celebration,—all have their effect in producing conditions which call for more or less effort on the part of this department to restore the Common to its natural condition and good order.

A number of men are employed exclusively to pick up papers and other waste and rubbish scattered over the lawns and walks of the Common, and the cost of this work is quite an item of our expenses. I do not complain of this, or introduce the subject in the light of an unexpected expenditure, but simply to show that habitual grumblers may sometimes criticise what they know little or nothing about.

#### PLANK-WALKS *versus* TILES.

For many years planking the walks on the Common, Public Garden, and other public grounds was considered a necessity, and as soon as one path was covered, pressing demands were made by the public for others; and, as I appreciated the comfort and convenience thereby afforded, I continued to increase their number year by year, until the Common alone became a network of plank-walks, and the attendant expense an alarmingly large item.

Realizing for several years past that walks of a permanent nature had become an actual necessity for the public grounds, I recommended, annually, the use of concrete,

asphalt, or asphalt tiles, and it gives me pleasure to recall the fact that this superior method of walk-making was commenced on the Common three years ago, and it is likely to be continued until all the principal paths are covered with such materials.

During the past year the wide walk extending from West-street gate to the corner of Beacon and Park streets was laid in concrete, which has made a very handsome as well as a very satisfactory walk in every respect, — at a cost of \$2,691, or \$1.00 per square yard. This is a very inexpensive and durable walk, and is warranted for ten years at least, at which time, if need be, it can be resurfaced for half the original expense.

Another permanent walk on the Common was laid from the entrance opposite Spruce street to the Coggs well fountain, opposite West street, at a cost of \$3,676.40. This walk is also handsome, but much more expensive than concrete, being \$2.60 per square yard. I do not see that it possesses sufficient advantage over the concrete to justify the great disparity of price between the two pavements.

There is no doubt of the popular approval of these walks, but there still seems to be an idea that they are too expensive, and that they kill the trees.

But these ideas are not correct, and the latter is strongly contradicted by not only the best authorities, such as Louden, Lindley, and Macintosh, whose opinions nobody will question, but by undisputed facts, for the trees along the line of concrete walks on the Common, which have been laid for years, are in as healthy a condition as those along the gravel walks. In both cases the roots shoot out on either side as far as the branches extend, and in this circuit, with the ordinary natural soil, can find food for their support.

#### SETTEES.

The settees added to our stock last summer were hailed with universal approval, being particularly appreciated by the large number of people who assembled to enjoy the Sunday afternoon band concerts on the Common. Still, notwithstanding this increase, the demand is not yet supplied, and requests for an increased number in the various out-of-town parks and squares are being continually received. The total number purchased this past year was 1,000, distributed as follows :

Common . . . . .	507
Washington park . . . . .	60

Rogers park . . . . .	100
Thomas park . . . . .	100
Orchard park . . . . .	33
Central square . . . . .	100
Belmont square . . . . .	100

"Honor to whom honor is due." In justice to the energetic Aldermen, Messrs. Lee, Sullivan, and Flood, I desire to state that through their individual exertions, the money was obtained for the settees charged to their respective districts.

The 500 purchased for the Sunday band concerts are distributed throughout the Common and Public Garden early every Monday morning, and replaced in position for the band concert every Saturday. This process, of course, caused quite an item of expense for teaming and labor, but the manifest enjoyment of the thousands who occupy them ought to compensate the city for the additional expense, until a sufficient number is acquired to allow them to remain stationary during the season.

That more settees are still needed on the Common the following letter from the Mayor will show :

## CITY OF BOSTON.

OFFICE OF THE MAYOR,

CITY HALL, July 24, 1891.

WILLIAM DOOGUE, ESQ., *Superintendent Public Grounds:*

DEAR SIR: I would like to know whether you cannot put more permanent settees around on the Common and Public Grounds. There is a great demand for them, and I think they are much more needed than some other improvements that are going on.

Yours very truly,

N. MATTHEWS, JR.,

*Mayor.*

This letter justifies the conclusion that the Mayor does not agree with Mr. Crocker's assertion that the settees are occupied only by "loafers."

"The rank is but the guinea stamp,  
The man's the gowd, for a' that."

The demand for settees is not to be wondered at so much as the want that calls it forth, but it is easily understood if we only take into consideration the thousands of people — men, women, and children — who make a trysting resort of these popular pleasure-grounds of the city.

It may be queried, Why has not this want been supplied long ere this? To which I beg to reply: When I assumed the charge of this department I found only 400 settees on hand, about one-quarter being worthless and unfit for use; and without any special appropriation I have continued to add to their number each year, as best I could from my regular scrimped appropriation, until the supply amounted to 1,000 settees, which was, to say the least, altogether inadequate to the public needs. We have now 2,000 settees to supply the demands throughout the city, whereas this quantity will only accommodate 10,000 people. When we reflect that it is customary for twenty, thirty, and forty, aye, fifty thousand people to visit these two pleasure-resorts on fine Sundays throughout the spring and summer seasons, it will be seen that I have made no exaggerated statement of this matter.

Through the thoughtfulness and consideration of His Honor the Mayor and the Committee on Appropriations, I will be able to purchase 500 more settees this season out of the regular appropriation, and I trust that the same committee may see its way clear to furnish the means for purchasing an additional 500 by the time the band concerts will commence.

#### THE PUBLIC GARDEN.

Next to the Common in importance in the estimation of Bostonians, but far ahead of it in attraction to outside visitors, is the Public Garden. Of this place, the care taken of it, and its appearance in the past year, during the various floral and other displays made on it, I need scarcely add one word to the opinions of the press and public, one of the former of which I beg leave to insert in this report.

The public do not, and could not be expected to comprehend the magnitude of the work performed in propagating, housing, and raising the enormous number of plants used in the Garden and other public squares, and the amount of skilled labor required to produce the results achieved in the various displays made in the Garden, not to mention the conveniences, means, and appliances required for this care and production.

All these matters require continual care, attention, and supervision during the long winter and spring months, when the mistake of one or the carelessness of another employee might destroy much of our work. To this end I have always maintained a most vigilant and critical watch, and as a result have always been successful in carrying out my designs of every nature in connection with the Garden and other public grounds under my charge.

The Garden has been highly praised, and is, no doubt, a finely adorned little park, of which even the most cultured of Boston's citizens may feel proud. At the same time I am aware of the fact that there are drawbacks to an appearance of naturalness in it, to which I have in my former reports referred, and will again. The granite curbing around the pond, which was out of line and position, we have had to reset and relay. This change, together with other improvements which I have planned, will add much to the attractiveness of the pond, and bring it more into harmony with its surroundings.

Another and more serious matter connected with the Public Garden pond, and one that caused considerable comment, some investigation, high talk, and much outlay without attaining any real or permanently beneficial results, is its mud-hole bottom. It would be too much to go over all the details of the discussions, investigations, criminations, and recriminations connected with this subject (all of which I have carefully filed away). Suffice it to say that its bottom is a receptacle for all the slimy ooze of the fresh waters that enter through it and bring with it all the refuse of the "Back Bay," and that this stuff, with the natural accretions of a stagnant body of water, the outside drainage it receives, and all this when churned up, as it is continually by the boats paddling through it, will never be anything to the eye or sense of smell but offensive and noxious. One way only to prevent its becoming, as it has at times, an intolerable nuisance, is to concrete the bottom and keep the tide slush out. Then when it becomes offensive, as all confined water will that has not an inletting and outletting flow, it can be drained off the bottom and the basin filled immediately; but at present it is a job of several days, or perhaps weeks, to scrape up and cart off the body of slimy matter collected there. It cannot be removed until exposed for some time to the sun, that it may become of such consistency as to be shovelled and carted; and during that time, depending altogether on the weather, a week or two or a month, the visitors to and wayfarers on that popular resort, among them some of our first citizens and officials from Commonwealth avenue and its neighborhood, have not only an unsightly and disgusting view to encounter, but all its exhalations and vapors to inhale. We have not had for a few years past the long hot summers of the years previous, and this basin has not consequently given out its former offensive effluvium; but a torrid wave is at any time very likely to produce it. At the expense of being termed tiresome, allow me to refer to my former recommendations



contained in my annual report for the year of 1890, page 11, where you will read :

The pond in the Public Garden requires special attention for several reasons. The bottom of this pond was improved some years ago with the view of completing it at some future time. This intention has never been fulfilled, and I now desire to briefly advert to its past and present condition and suggest that the original idea be carried out.

Twelve years ago the bottom of the pond was a quagmire, with holes here and there from four to twenty feet in depth, and in fact the whole bottom was so soft and spongy that but little force was required to drive a pole anywhere to a depth of twenty-one feet. About this time, under pressure of public sentiment, the chairman of the committee of this department brought the subject before the City Government, and as a result an appropriation of \$10,000 was allowed, which proved to be barely sufficient to grade the bottom of the pond so that it might be maintained clean and comparatively pure under ordinary circumstances. But what I mean by ordinary circumstances is not allowed to prevail, the paddles and oars of the pleasure-boats which are allowed on the pond keep the water in continual agitation and churn up the mud in a way that renders it, as a sheet of water in a pleasure resort, anything but inviting and satisfactory to the eye. Now, if the bottom of the pond were concreted, it would be an easy matter to draw off the water at any time, and sweep and flush the bottom and refill with a supply of fresh water.

Several years ago the late City Engineer, Mr. Wightman, estimated that it would cost \$20,000 to concrete the bottom of the pond, but I am satisfied that whatever the expense, the money would be well spent, as the improvement would be permanent.

I hope this matter will be taken into serious consideration, as it is one that appeals to all our citizens, and should be attended to.

Another drawback, and one that will require a large expenditure to remedy, is the irregularity of grade, from the mere fact that the made land of which the Garden is mainly composed is fast sinking, not in a regular, cohesive body, but just as the sub-basis controls the old channel or deep-water bottom, evidently showing the greater depression as they more readily absorb the material used in filling. While a great portion of the surface is gradually sinking in a body, there are spots here and there that fall away quicker, and show after rain-storms in the hollow places where the water settles in pools. There is a large space between the central Charles-street entrance and Boylston street that has notably sunk down, and we have at times a little pool there. Again, the stretch of sward between the pond and Beacon street is fast sinking, and so perceptibly that the water in the pond shows it, for when on a line with the curb on the Boylston-street side, it is on the Beacon-street side overflowing the walks. The sward itself, though to a casual observer seeming all right, will be found on inspection to have given way

considerably, and to be down much below the line of grade, and the tendency is still that way.

Even outside the fact of the expense likely to accrue from this cause, there is another feature to be looked at in connection with these depressions, which is, that they really invert the order in which things should be, as the Garden sadly needs elevations.

The tendency of elevations in gardening being to really magnify their extent, and give the imagination opportunity to estimate what is not seen by what is in view, the effect of such irregularities of surface is always enhancing, and even pleasing, because in them the grander aspects of nature are reproduced; whereas on a flat surface the whole view is grasped at a glance, the limits are at once apparent, the scene is too connected, and the effect much less impressive than when elevations interfere.

To maintain the standard I have striven to establish will require a considerable amount of filling in and regrading, in fact, of the whole Garden. From a careful study of the matter and conclusions arrived at, I deem it my duty to again submit these facts for the consideration of the city authorities, and leave it to them to decide whether or not it is expedient to take any immediate steps toward this work, of necessity on one of the city's chief places of attraction for the general public.

A new, unique, and very popular innovation has been inaugurated on the grounds this winter, an account of which I give from the "Herald."

#### NORWAY ON THE PUBLIC GARDEN.

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#### UNIQUE DISPLAY OF EVERGREEN TREES.

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#### A WINTER COSTUME.

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The visitor to our Public Garden at this time, though he might not look for anything novel or attractive at this winter season, would be not only surprised but delighted to find an altogether novel display there, — a winter display, in fact. Remembering the display of last summer, which gave to the garden a semi-tropical appearance, if not actually a tropical one, he will now see by contrast a suggestion of semi-arctic Norway in the hundreds of silver firs and spruces which dot the landscape of the garden, and give it an evergreen character which is as striking as it is agreeable.

Around the beds of half hardy shrubbery, such as rhododendrons, etc., these evergreen trees are placed in protective groups, which, in addition to their utility in this connection, make them a striking feature as the general evergreen characteristic of the Public Garden.

In this new departure in the winter decorations of the garden Mr.

Doogue has demonstrated the fertility of his resources as a public decorator, and it is safe to say that his efforts will be fully appreciated by the public. Indeed, all the Back Bay people who have occasion to cross the Public Garden are simply delighted with his display, and freely express their appreciation of it.

By this stroke of genius the Public Garden is made attractive, even in the winter season. It will well repay a visit, or many of them, to see this favorite resort in its new costume.

It would give me unqualified pleasure to recognize in this report the numerous favorable and very flattering notices of the press of Boston and journals throughout the country, as well as the large numbers of complimentary letters received from private individuals who visited the Public Garden. But space will not permit it. Of themselves they would form a fair-sized volume of very interesting reading-matter, and would be a great and sufficient refutation of the malicious and unfriendly criticism of one "*Dr. Jekyll and Mr. Hyde.*"

A word in regard to the floral feature of the Garden during the past season. There were several displays there, which followed one another in regular succession, so that at no time, from the earliest setting out until the close of the season, was there an interval between any of the displays. Crocuses and scillas led the floral procession. Then followed two displays of hyacinths, and then came along tulips, narcissus, pansies, forget-me-nots, daisies, a special display of roses and forget-me-nots around the Washington Monument, cowslips and polyanthus, and the general summer displays of tropical and other bedding plants, rhododendrons, azaleas, etc. During the past season there were floral displays on the Garden for a period of over six months without any break.

It is a fact well known that until recent years no gardener in this country ever made any attempt to produce more than one spring and one summer display of flowering plants. If I have succeeded in elevating the art of gardening and widening its scope to embrace a succession of displays during the entire season, I think I have done something towards increasing the enjoyment of all lovers of the beautiful, and this reflection satisfies me.

In conclusion, I may add, with regard to the criticisms that have been made of the geometrical figures which were produced in the Garden, that while I do not altogether believe in this style of work, I have made it tolerable, if not fascinating, and have raised it to a point of excellence where an appreciative critic can recognize its merit. Of the other critics I may remark, that I am reconciled by the homely fact that neither *boys nor monkeys* ever trouble sour fruit as

long as there is ripe, luscious fruit in the orchard. Hence the fact, that sticks and stones are only to be looked for under trees with ripe fruit. Sir Samuel Edgerton Bridges says, "When I perceive a man incapable of deriving pleasure from more than one style of composition, and dogmatizing on its exclusive merit, I pity his weakness and despise his presumption." Again, "An enlightened mind will derive pleasure from any style." All of which I humbly commend to our super-æsthetic *professor*. (?)

#### COMMONWEALTH AVENUE.

Perhaps no other part of the city's grounds has occupied so much of my attention or called for so much care since I first took charge of the department as this avenue, from the fact that it is a gravel bed with a slight coating of loam over it, on which I have been trying to raise grass and trees. I have been endeavoring for years to bring this important avenue into a decent condition, and have spared neither pains nor expense in doing so, and have written more about its condition than about any other park under my charge; but in addition to the apparent difficulty of the undertaking I have had to contend with individuals who seem to think they have a right, as residents, to dictate what should and what should not be done. These gentlemen made complaint not long since because I had the presumption to "top-dress" the lawns with composted manure. A public complaint thereof was made through the press, and an order introduced in the City Council which was referred to the Committee on Public Grounds.

In answer to this I addressed the Committee on Public Grounds, clearly setting forth what I had done, and my justification in doing it, and stated that top-dressing with manure was generally employed on the various parks and squares because the lawns of these grounds required it, and it was the proper thing to give them. The charge that composted manure used on Commonwealth avenue was a nuisance and dangerous to the health of the residents I denied. I pointed to the fact that while the park on the avenue was charged with being a nuisance, there were, by actual count, three hundred and eight residences on Commonwealth avenue and its immediate neighborhood which had the very same material — barn-yard manure — spread over the grass-plots in front of them, and directly under their windows. Further than this, I produced the highest authorities on such matters to sustain the position which I had taken in the controversy.

J. C. Loudon, F.L.S.H.S., in his "Encyclopædia on Gardening," says :

The important fact that plants derive the greater portion even of their carbon from the air explained the reason why it was necessary to turn our stable manure frequently while it was undergoing the progress of decay, as it was found that this process makes it imbibe from the air these gases which are most wholesome to plants.

It is the common practice with gardeners to suffer the stable dung to ferment till the fibrous texture of the vegetable matter is so entirely broken down that the whole mass can be easily cut with a spade, and long experience has shown that this is the best mode for applying stable manure to the ground.

The manure used on public grounds was of the nature spoken of above, and so prepared that all noxious gases were extracted, or rather forced out, and the material left so deadened in decay that it did not have the power of producing or emitting an offensive odor.

John Lindley, Ph.D., F.R.S., in his "Theory and Practice of Horticulture," says :

"The application of manure to the vegetable kingdom is as artificial feeding to animals." And again, "Dung has been found more conducive to vegetation than heating materials of any other kind." Also, "Farm-yard manure, when well made, is probably the best of all, because of the great variety of substances which it contains."

I said, in conclusion, Permit me to repeat what I have stated in my annual reports during the past fourteen years, viz., that Commonwealth avenue, more especially the five lower sections, between Dartmouth street and West Chester park, is simply a huge gravel bank, and hence it has demanded and received each year heroic treatment at my hands. At seasonable intervals during the past year I have fertilized it with Canada hard-wood ashes, Bowker's and Bradley's fertilizers, and lastly, and best of all for a winter coating, with what Dr. McKenzie calls "The Farmer's Bank Account, well composted stable dung — nature's fertilizer." Again he says, "Graminivorous feeders return to the soil eighty per cent. of what they abstract from it."

I may add that the petitioner in this case was granted leave to withdraw.

#### BLACKSTONE AND FRANKLIN SQUARES.

Blackstone and Franklin squares, at the South End, are so centrally situated and familiarly known in historic associations with the first settlement of Boston as to require little or no introduction from me.

Blackstone is bounded by Washington, West Brookline,

West Newton streets and Shawmut avenue, and contains 105,205 sq. ft., or 2.41 acres.

Franklin, which is opposite it, contains 105,100 sq. ft., or about 2.41 acres. It is bounded by Washington, East Brookline, East Newton, and James streets. On my appointment to the superintendency of public grounds, these parks were surrounded by antiquated, cumbersome old fences. The inside condition of the grounds was in perfect keeping with the dilapidated fences, and was anything but inviting to the citizens. I therefore pleaded with my committee to allow me to remove the fences at once.

It is pleasing to state that the minds of the committee just fitted into my groove of thought, and as a consequence the antiquated fences were removed without very much delay on my part.

This improvement necessarily called for still further improvements. The surface of the squares had to be raised by filling in to bring it to a level with the street grade. In the meantime the amount of the appropriation for that special work was not sufficient to finish it in a satisfactory or creditable manner, and so it remained in a half-finished condition until Alderman Lewis came happily to the front and enabled me to carry out the work as projected.

He had a special appropriation awarded to Blackstone and Franklin squares for asphalt tile or concrete walks, and other much-needed improvements, and very much to the satisfaction of many of the South End residents the diagonal paths in each of these squares have been laid permanently. On Blackston will be found the asphalt tile walk, differing from those on the Common in point of shape only, being hexagonal instead of square, and therefore a trifle more ornamental. The cost of this walk was at the same rate as those on the Common, and amounted to \$3,800, or \$2.60 per square yard. The concrete walk laid in Franklin square received an unstinted share of well-merited praise. It is of a light granite stone color, and compares in appearance very favorably with its rival in the opposite square. The cost was \$1,647.53, or \$1 per square yard.

#### EAST AND WEST CHESTER PARK AND SQUARE.

The ornamental grounds were originally constructed in such a poor and imperfect manner that nothing in the shape of trees or other vegetation could be made to thrive on them, and instead of being a pleasure to the dwellers opposite to them and in their vicinity, they became an eyesore. The best and most thrifty trees that were planted on them failed

to thrive, and soon withered and died. I soon found the cause of this mortality, and pointed out the remedy, which was a costly one, but yet the only one that could be adopted. It involved the entire removal of the gravel filling, which was so porous that it would not retain moisture for the roots of trees or grass, and its replacement with a subsoil of blue clay and a body of good, virgin loam. The result of this change has been a healthy growth of the trees planted on the parks, and all other vegetation raised on them has had a flourishing existence. These parks, for their extent, are among the most beautiful in the city; their trees are fine and flourishing; their grassy swards green and inviting throughout the summer, while the flowering plants intrusted to their nurture are equal in attractiveness to any on the Public Garden or elsewhere in the city. So much for right methods as contrasted with "ignoble economy."

In this connection permit me to say that money which is well and judiciously spent in park improvements is always sure to enhance the value of surrounding property. This fact has been strongly illustrated in the improvements made not only in the city proper, in East and West Chester park, and Rutland and Concord squares, etc., but in the outlying districts.

#### SOUTH BOSTON PARKS AND SQUARES.

One at least of the parks of the South Boston district is now, thanks to the energy and public spirit of Alderman Flood, in excellent condition.

*Independence square* contains six and one-half acres. Among the improvements on this park one of the most desirable has been the repairing and resurfacing of the outer line of walks, at an expense of \$1,200. A handsome flag-staff has been erected on it, and an ornamental drinking-fountain placed in it; and the latter has been greatly appreciated by the hundreds of people who have sought it and the enjoyment of fresh air and agreeable surroundings in this spacious park.

*Thomas park*, otherwise known as Telegraph hill, is not in a very creditable condition, notwithstanding the considerable amounts of money which have been expended on it. This is due to the fact that various games, such as base-ball, croquet, etc., have been permitted in it. The grassed banks have been injured, settees badly wrecked, and other wanton acts committed. This state of affairs is no doubt in a measure owing to the fact that no police protection had been accorded to it.

*Lincoln square* has been supplied with a good share of

flowering plants, and has received the usual amount of care and attention, with the usual satisfactory results.

*Norris, or Commonwealth Park,*

is located on the made land of South Boston, on the Commonwealth flats. It comprises about 15 acres, and has been given to the city for a period of years to be used as a public playground for that district. It was placed in the charge of this department, and has been levelled off and graded, and the ball-ground covered with Medford gravel. Three years ago I submitted a plan for the improvement of this park which called for an expenditure of some \$6,000, which would have enabled me to place it in fine condition as a public resort, with driveways, trees, shrubbery, and flower-beds. This was not accorded, but only enough appropriated to put it in its present condition. I earnestly hope that the Committee on Public Grounds will recommend that an appropriation for carrying out my plan will be made.

CHARLESTOWN DISTRICT PARKS AND SQUARES.

The small parks on the *City square* in the Charlestown district required little more attention during the past year than the ordinary plant ornamentations, which were liberally supplied. Indeed, these little restful spots have their successive displays of sub-tropicals, geraniums, coleus, acalphas, dwarf lantanas, ageratums, pilea, alternantheras, lobelias, etc., in common with the other and larger squares, all grouped, as it were, into harmonious combinations that were pleasing to the eye. With our enlarged facilities for art decorations, it is my intention to introduce some new and appropriate decorations in these squares the coming season, which I trust will meet with a just appreciation. Thanks to Alderman Stacey, the old fences surrounding these squares have been removed and new wrought-iron ornamental low fences substituted, which I hope will satisfy the æsthetic tastes of the patriotic citizens of that renowned district.

*Sullivan Square,*

at the extreme north end of Main street, is easily accessible at all times. This, too, has had the usual fertilizing care and its quota of flowering plants, which latter, I am pleased to say, have been respected and enjoyed immunity from the vandalism so prevalent in some of the South End parks and squares. With my enlarged appropriation I intend to improve this square still more, and make



its walks and general features more inviting. This, with the addition of 100 settees, will make it more attractive than ever as a public resort.

### *Winthrop Square*

is located on the west of Bunker hill, in the shadow of the historic shaft which commemorates the first great battle of the sons of liberty in America. It is surrounded by Winthrop, Common, and Adams streets, and its walks are trod by pilgrims from far and near every year in ever-increasing numbers. The square itself is a veritable flower-garden from early spring to late in the fall, and is a favorite place of resort for the people of the surrounding district. I would suggest that, this being the fact, more settees are needed here.

### *Essex Square*

contains 930 sq. ft., and is located on Essex and Lyndeboro' streets. It is more of a private garden for the use of the donor than for any public or practical use, and to my mind it would be better to deed it back to the donor rather than attempt to maintain it at the public charge. However, this is a matter for the City Government to consider.

## EAST BOSTON'S PARKS AND SQUARES.

There was a time not long ago that I almost dreaded to hear the name "Belmont," "Maverick," or "Central," owing to their long neglected and disgraceful appearance, meriting, as they did, from the good citizens of the island ward the strongest contempt and ridicule. All this feeling is happily changed to congratulation, in which are mingled the praises of Alderman John H. Sullivan, for the pleasing transformation of these parks into attractive places of resort. Each of these little parks and squares, through the instrumentality of the alderman in question, has been metamorphosed into a thing of beauty.

The old clumsy iron fences, relics of a past age, which some old residents wished retained, have been removed and replaced by handsomely cut curbstones.

Superfluous trees were removed and the remaining ones carefully trimmed. In the enclosures, the ground was subsoiled, and virgin loam supplied to a depth of one, two, and three feet, as circumstances demanded. Well-rotted cow manure was plentifully spaded in, not too deep, but just deep enough to allow the young plants to send down their roots and receive good nourishment.

Flower-beds have been created on these parks and liberally planted with spring-flowering bulbs. Pansies will come in succession, to be followed by the regular summer display.

Altogether these parks have been so well improved as to give general satisfaction to the citizens of the island ward.

The trees on the public streets of East Boston have also had a pretty general overhauling, and are now in as good condition as skill and art can make them. The two remaining small squares will receive their share of attention in the early spring.

How the special appropriation was expended will be found on the financial schedule annexed, and the results, I will only say, speak for themselves.

### BRIGHTON'S PARKS.

One of the finest and most cosey parks of its size in Boston, and the principal one in Brighton, is *Rogers park*, so named in honor of ex-Alderman Rogers, a distinguished citizen of that district, and which, I may add, owes its existence and later extension to another of Brighton's distinguished men, to wit, Alderman Lee, President of the Board of Aldermen. The following extracts from an article in the Boston "Herald" of Sept. 24, 1891, will give a good idea of this park and its surroundings :

Rogers park, in the Brighton district, is one of the most beautiful of its size in the city of Boston. It is located on Foster street, the territory, which comprises some 300,000 sq. ft., or about seven acres, extending across to Lake street.

As a matter of fact, however, only about four acres are included in the park which are fitted for public resort, the remaining three acres on the Lake-street side being unfit for park purposes at present, owing to the soil being wet and boggy for lack of proper drainage — a matter easily remedied.

Rogers park is a portion of the estate of the late Eben Wright, of the well-known firm of Wright, Bliss, & Fabyan. The other portion of the estate is located on the westerly side of Forest street, and it is said that Mr. Wright spent over \$100,000 on the whole estate, making it one of the finest and best-appointed in the district. The seven acres acquired, or at least the four acres of the tract which is utilized for public resort, needed some expenditure to fit it for its purpose, — the making of a winding walk down to the pond (which, let me say here, has overflowed the walks), the clearing out of the latter, and the construction of a new overflow-drain for the lake, being all that was required to be done.

But if Boston's park system is designed to provide for the wants of the future, it would seem that Brighton will very soon find that a park of seven acres will be totally inadequate to the needs of her people.

The writer visited the park recently. He was struck with its beauty, and admired the fine avenue, lined with trees, which surrounded the pond or lake in it.

Meeting Alderman John H. Lee, he asked that gentleman, regarding Brighton's public parks, to give his opinion and his views. He said:

"Outside Rogers park, we have only a few small squares or plots where people can go of right for out-door recreation. Now you see what Rogers park is. It is beautiful, what there is of it; but what is a seven-acre park for this district, which is growing as rapidly as any of the outlying sections of Boston? In 1874 or 1875 this district contained only about 3,500 inhabitants; now it has 13,500.

"Rogers park is central, and the needs of our population even now call for its enlargement, and it would be the best economy on the part of the city to secure adjoining lands at once rather than wait until a general rise in values will enhance them to more than double their value."

"What lands should you suggest should be taken?"

"Those on the south, lying between the park and the St. John Theological Seminary. Of the properties here, about ten acres could be secured for the park, which could be adapted to park purposes at a very small cost.

"Then there is the other part of the Wright estate on the other side of Foster street. It is about four acres in area, and is high and eminently adapted for park purposes. Good views of the surrounding scenery can be had from it, and its inclusion in the park, together with the ten acres suggested, would give a diversified character and charm to the park that would make it the finest of its size in the city. Indeed, I consider this section altogether essential to the rounding out of the park. The Wright mansion and stable are on it, but they can be utilized by the city in some way, or can be removed off of it if necessary.

"I think this estate can be purchased from the present owner at a low figure, considering the value and condition of the property, and believe that it would be the best economy to secure it."

I heartily indorse the above, more especially because the lands are already prepared for park purposes, requiring little more than the making of driveways and walks, a point well worth consideration.

Among the improvements of the park the winding walk suggested above has been made. The old wooden drain that was rotted away and caused the earth to fall in, clog the outlet and overflow the walks, has been replaced by a new tile drain sufficiently large to carry away all the superfluous water from the little lake, which, I am pleased to say, is simply supplied with water from the purest of natural springs.

The laying out of the new walk by the pond necessitated the levelling and regrading of the surface from the walk to the water's edge, to give it an easy, graceful contour.

In addition, all the old walks were remade and surfaced with red gravel from the Brighton district.

The trees and shrubs received their due share of attention by being pruned, trimmed, and fertilized.

One hundred settees were, through the instrumentality of Alderman Lee, purchased for this park, and were greatly appreciated by the citizens, who availed themselves of all the comforts and enjoyments that this exceedingly natural and attractive park afforded.

The three acres on the Lake-street or west side are boggy, wet, and soggy, from the superabundance of springs there.

It requires one main drain, into which several blind drains may empty their superfluous waters, which will keep the land dry enough for all practical purposes. If this is done, the boundary lines should be planted with forest trees, evergreens, and shrubbery, and broad curvaline walks should extend around the circuit to intersect with the walks or drives of the improved portion of the park. After the drains and walks are made, the ground should be broken up, ploughed, manured, harrowed, and seeded down, — all of which could be accomplished in the early spring, provided an appropriation is made for the purpose.

I wish to say to the aldermen that \$6,000 would place this park in such a fine condition that it will require no more money than enough for the ordinary wear and tear for the next generation.

The other public grounds in the Brighton district are Brighton square, Jackson square, and Fern square. These are all in fine condition, and will receive their share of floral decorations the coming season. Fern square, which is located on Franklin street, was opened to the public for the first time last season. It is a small square, but meets a want for such a resort in the neighborhood in which it is located.

#### ROXBURY DISTRICT PARKS AND SQUARES.

Not much more than a decade ago Orchard park was a forlorn and dilapidated public square, a mere ball-field for the boys of the neighborhood. Now its walks are well kept, its grassy sward green and inviting, its trees strong and thrifty, while in the season it has had a liberal share of showy flowering plants.

##### *Washington Park,*

which has an area of nine acres, is a beautiful and inviting resort, and has been maintained in fine condition. No flowering or showy plants are employed here, the well-cared-for grassy slopes and levels being among the attractions of this place, which is intended for a park, and not a garden. Sixty settees were purchased and placed in this park last season, and two hundred more at least are needed the coming season.

##### *In Madison Park*

may be found well-kept walks and vigorous young trees, under whose shade seats are arranged in the summer season,

which are now occupied by a much better class of people than that which frequented this park a few years ago. In the season there is a large number of flowering and showy plants in this resort, and I consider it one of the most cosey and beautiful parks in the department.

*Fellows-street Playground.*

A few words regarding the Fellows-street playground, so called. An appropriation of \$1,000 to fit this land for a playground was made some years ago, and I then made an attempt to start work on it, but I found that there was an encroachment of some five feet on it by a building. I notified Mayor Hart of this obstruction, and was directed by him not to proceed with the work until the boundary lines were settled. The matter was referred to the Law Department, where it has remained up to the present time. Under any circumstances I would not advise the filling of the lot to the street grade, because such an improvement would injure adjoining property to some extent. All that should be done would be to clear up the *débris* on it and level it off at its present grade, when it would be little better than a mere mud-hole after every rain-storm, more especially during the spring and fall. This could be done, if desirable, for about \$200. On the opposite side of Harrison avenue, within a few hundred feet of the above, there are several vacant lots owned by the city which could be used to better advantage and made available for the same amount, \$200. Alderman Lewis called my attention to these lots, and said he would move to have them transferred for this purpose until otherwise needed by the city. I heartily second his suggestion, and trust that he will be successful in carrying it out. The \$1,000 would enable me to plant it with trees, shrubs, and flowers, and, if necessary, to fence it, as well as keep it in a fine condition during the season. All this could be accomplished during the month of April, and the ground be ready for the children the first of May.

In my last report I said, "Bromley park is in a shabby condition, and only when a special officer is detailed to look after it, is it possible to keep it in anything like decent order. I would suggest that this park be given as a playground for the children of the neighborhood." On reflection, however, it occurred to me that it would be better to make an attempt to carry out in this place the purpose for which it was originally intended. I accordingly put a force to work on it last season, and trenched, manured, and seeded

down the whole area, and it is now in as good condition as any park in the district. This park consists of three enclosures, which aggregate 20,975 square feet in area. The cost of the improvements made on this park amounted to \$832.44.

#### HIGHLAND PARK STAND-PIPE GROUNDS.

##### *Highland Park,*

upon which the old water stand-pipe is situated, was turned over to this department three years ago in about the same bad condition that now distinguishes it. It was thus transferred without the knowledge of the Committee on Public Grounds, who would not have accepted it had they been aware of its condition. I have endeavored to keep its walks swept up and maintained in a passable condition, but a special appropriation for its complete renovation is needed.

Ex-Alderman Farmer at one time introduced an order in the Board for an appropriation of \$5,000 for its renovation, but the Council failed to concur. The stand-pipe is in a bad condition and needs attention. This structure might be utilized as an observatory; but as this conversion would require a special appropriation, it would, in my opinion, be wiser to sell it or give it to some one who will tear it down and remove it for the bricks of which it is composed.

With a moderate expenditure it might be made a most agreeable place of resort. Trees and other desirable features could be added; and the present wide and badly heaved walks could be narrowed and concreted or gravelled. The front face wall, I notice, has been heaved and damaged by the frost and ground-water, and needs relaying.

##### *Fountain Park,*

containing 2.66 acres, is situated on Walnut avenue between Munroe and Townsend streets. During the past season the walks were remade, the iron fence repaired and painted. Settees have been placed along the walks in available places. This park is now in fine condition.

The remaining Roxbury parks have received the usual care and attention accorded to the large parks.

#### DORCHESTER DISTRICT PARKS AND SQUARES.

In regard to the parks and squares of the Dorchester district I am pleased to report that with the exception of Richardson park, which is specially treated of elsewhere, all have been improved and are in the very best condition. Three of these public resorts may be mentioned here, viz.:

*Meeting-House Hill, Eaton Square, and Mt. Bowdoin Green.*

The first of these has an area of 56,200 sq. ft. Eaton square is the only one of these which has had floral displays in the season, but it is my intention the coming season to extend this system of decoration to both the other grounds named. The public ground on Magnolia street has not been improved, and calls for a special appropriation, which I respectfully ask the Committee on Public Grounds to recommend.

## WEST ROXBURY PUBLIC GROUNDS.

The park, or public ground, on the shore of Jamaica pond contains 31,000 sq. ft., and is in a fine condition. It is well provided with trees, and next season I hope to make it still more attractive by the addition of beds of flowering plants.

The Soldiers' Monument lot is a small one, containing only 5,870 sq. ft. The grass on this lot is kept in good condition.

I sympathize with the people of this neighborhood in their lack of public grounds, which, however, is perhaps fully compensated for by the near vicinity of Franklin park and the Arnold Arboretum.

I beg to suggest that the two small parks on Adams street and vicinity should be named in honor of ex-Alderman Caruth, who had them added to the department and laid out with grass and vases of flowers during the past season.

## RICHARDSON SQUARE.

I have heretofore called attention to this public park, and made suggestions in regard to its completion and utilization. On June 25, 1891, an order was passed by the Common Council and concurred in by the Board of Aldermen, requesting me to submit to the City Council a plan and estimate for the improvement of Richardson park, situated at the junction of Boston, Pond, and Cottage streets and East Chester park extension, in the Dorchester District.

In response to my application, City Surveyor Thomas N. Davis furnished me the following. By approximate estimate, he says :

It will require about 1,500 squares to fill Richardson square between Cottage and Pond streets, in the Dorchester district, to the grade of those streets. After filling is completed levels will have to be taken on the surface of the filling to make an accurate estimate.

A square being eight cubic yards, it would, therefore, take 12,000 cubic yards, perhaps 13,000, to fill this park up to a street grade. At \$1.00 per cubic yard the cost of filling this with loam can be readily estimated. My suggestion would be to take up the loam on the present surface of the land and put it in heaps at the four corners of the lot. The filling could then be done by the Street Department in the shape of coal-ashes and other clean fillings, not street-sweepings, however. When by this means the level was raised to street grade, the loam taken up could be spread over the filling, and a foundation for vegetation established. This would be an economical way of putting Richardson park into a condition for public use. The work by this means, including fencing, grading of walks, etc., instead of costing the city \$15,000, or more, to complete, could be done for about \$5,000.

#### GREENHOUSES AND NURSERY.

All the plants that appear during the year in the Garden and public grounds — and they may be counted by the million — come from the city's greenhouses on East Chester park. And all the young, shapely trees planted by this department throughout the public grounds and on our public streets and avenues are from the nursery connected with the greenhouses. These two institutions, which I can claim to be the originator of, I can also claim to have successfully conducted. Instead of going out and buying year after year, as in former days, inferior plants at high prices, I now can decorate our gardens, parks, and squares with the flowering plants of the season, and before the season, too, from the city greenhouses. This property, even outside its present uses, has become highly valuable. It is quite an acquisition to the city, and has been acquired, saved, and improved during my administration of the Department of Public Grounds, with the aid and assistance of the intelligent committees of my department, during that time.

In this connection I would like to again refer to the fact that this department has outgrown its present quarters at East Chester park. The section of the grounds on the side next to Harrison avenue, which was at first used for the storage of settees, plank-walks, etc., has been gradually but surely encroached upon by the growing needs of the propagating department, until it is now entirely covered by trees, frames, and greenhouses, and the department has been forced to obtain and pay for storage elsewhere — a thing that we should not be required to resort to. We had hardly occupied these grounds on East Chester park when I saw that it



would not be long before we should need all the land comprised in the square up to Harrison avenue, and urged upon the city the necessity of securing what remained of it, which is the property of Robert Treat Paine, Esq., who was quite willing to sell to the city at a low price for the purpose of rounding out the nursery grounds. Mr. Paine kept this property out of the market for some time with the view that the city should have it, but finally, tired of allowing it to be a source of taxation to him rather than of income, he built a brick block on the corner of East Chester park and Harrison avenue. Considerably more than half the land, however, can yet be secured. It is sadly needed by this department, and it is better where it is than double the quantity situated at a distance from the nursery, and I would earnestly urge that it be secured by the city as soon as possible. Indeed, Alderman Lewis has expressed himself very favorably and emphatically upon the necessity of acquiring this piece of ground.

Now, in regard to the utility of the city greenhouses and nursery, and their great saving to the city. Previous to my taking charge of this department, according to printed statistics of the same, it cost within a fraction of \$7,000 to purchase or procure 34,000 plants for the Public Garden, and such like purchases were made every year. If we compute the value of 1,000,000 plants at the same rate of the cost of the 34,000 in question, we would have an amount of \$200,000 as the value of that number produced in our greenhouses and nursery. But as we have more than this number of two or three varieties of plants alone, the figures given, large as they are, would not begin to cover the value of the plants produced at this time, not to take into account the value of the trees and shrubbery produced in the nursery and the many kinds of bulbs which we now cultivate.

Formerly, that is, before my time in this department, flowering plants were used only on the Public Garden. Now, as for years past, they are planted on every park and square where the conditions are suitable for their growth. If we compare the quality of the plants formerly used with those produced in the present day, the value of the latter would be three times as much as the old ones. I am impelled to these remarks to answer insinuations which have been made against my management of this department and the great cost to the city of the plants produced for decorating the Public Garden and squares under this system. Why, the fact is that, instead of being costly, the plants now propagated in the city nursery do not cost the taxpayers one-twentieth of what they would under the old

system. Facts are stubborn things, and all efforts of malice and ignorance only serve to strengthen their force.

#### DISTRIBUTION OF PLANTS.

The annual free distribution, in the fall, *by permission of the Mayor*, of the city's surplus plants, which were taken from the Public Garden and other public grounds, continues to grow in popularity with the general public in common with the citizens of Boston and vicinity. At the last distribution some 36,000 plants of all kinds, with loam to pot them, were given away. At first, contrary to my usual custom, I notified the public of this distribution by common advertisement. This not meeting with a ready response from the public, and judging that it was because the announcement was not looked for in such a place by those interested, I informed a "Herald" reporter of the fact. That afternoon a paragraph announcing the giving away of the plants appeared in that paper, and the following day, notwithstanding it was raining hard, all the plants on hand for the purpose were given away to eager applicants before 12 o'clock noon. Not only this, but I received by mail many letters requesting that I send plants even to distant places. One lady in Maine asked for some plants from the Public Garden, principally as souvenirs of dear old Boston. I respected this sentiment in the lady to the extent of sending her the plants she asked for, and did the same thing in numerous other cases of like request.

In the annual distribution of plants the coming fall season, when I hope to have a still larger number to give away, it is my intention to accompany these gifts with a circular directing how to pot and care for the plants given, so that they may bloom during the winter season.

In regard to furnishing school-house yards with plants, allow me to quote from my annual report of 1888, City Document No. 76:

#### SCHOOL-HOUSES AND FLOWERS.

A proposition made to me a few days ago by ex-Mayor Martin has impressed me very forcibly with the idea that much of the vacant land attached to our school-houses might at very little cost be utilized for flower-beds, that would make them look much more cheerful than they do now with their dull, cold, monotonous expanse of flag or brick. This might be done without interfering with or encroaching upon the children's playground, as almost all have space enough within their enclosures to admit of a few flower-beds and yet afford ample room for the children to enjoy their diversions, and the innovation would no doubt be pleasing to them. Certainly they would enjoy the society of flowers, and gladly welcome their introduction into the cheerless-

looking playgrounds that they now romp about at recess. His suggestion is a good one and met at once my hearty approval, and I will, with the consent of the Mayor, the School Board, and Committee on Common and Public Grounds, be only too pleased to give it all the aid and assistance in my power, if carried out, as I trust it will. The cost will be nothing more than the foundations of the beds, loam, and labor. I will agree, with the permission of His Honor the Mayor and my committee, to furnish all the plants required, and when placed out, take them under my charge as Superintendent of Public Grounds, and look after and care for them as a duty devolving upon me; and an agreeable one it would be in thus having it in my power to aid in furnishing such pleasing surroundings for the gratification of the children. The idea occurred to Mr. Martin in connection with the school-house named after him, and his wish to do something towards embellishing it. The plan suggested itself to him, and he now wishes to see, and intends to have, the grounds attached to that school thus beautified at his own expense. Doing me the honor to consult with me on the subject, I assured him it met with my hearty approval, and tendered him the offer of my services in carrying it out, and, with the consent of the Mayor and committee, of supplying from the city greenhouses all the plants required, the only expense being the labor and loam. I place this happy and considerate suggestion of our honored ex-mayor before the city authorities, with my warmest commendations, and on behalf of the rising generations ask for it a favorable consideration.

A suitable appropriation for the preparation of the school-house grounds is all that is needed to put these suggestions into practical operation and thus afford unlimited pleasure to all the masters, teachers, and children, as well as to the writer.

### STREET TREES.

Revised Ordinances of 1890, Chap. 37, Sect. 1.

#### DEPARTMENT OF PUBLIC GROUNDS.

The department of public grounds shall be under the charge of the superintendent of public grounds, who shall have the care and superintendence of the public grounds and of all trees belonging to the city; shall carry out any directions of the board of aldermen relating to matters in their control concerning trees; shall cause all statutes and ordinances made for the protection of trees, shrubs, and flowers in the public grounds and streets to be strictly observed.

Having explained very explicitly the street-tree problem in my annual report of two years ago, to which I beg to refer, I shall now merely give a synopsis of their treatment during the past season, and a statement of their present condition.

During thirteen years of my administration I only received \$3,000 for the immense work of caring for the large number of street trees included in my charge.

When you read the following census, which was made at the request of David F. Barry, Esq., present chairman of the Common Council, you cannot fail to understand that this

small sum was not sufficient to enable me to make any appreciable improvements, no matter how judiciously expended.

Aldermen Sullivan, Flood, Stacey, and the members of my committee, being aware of my appeals in behalf of the much-neglected street trees, by combined exertions succeeded last year in obtaining a special appropriation of \$10,000, and, as the following schedule of trees trimmed and removed and expense account will show, a considerable amount of work has been accomplished, although not yet completed. This work will be continued until the balance of the appropriation is exhausted.

The general condition and appearance of the trees have been improved to such a great extent that a small amount of \$2,500 added annually to the general appropriation will now keep the trees in good condition and satisfy the public, who have heretofore had just reason to complain.

I may add, in regard to the trees on the public streets, that we stand to-day, in point of their numbers, nearly where we were when I assumed my present position in 1878. At that time a census of the street trees was taken, resulting in the showing that there were some 22,000 of these trees in existence. Since then there have been planted out some several thousand trees, and this department has besides given several thousand trees to individuals for street adornment, and yet to-day we have only between 27,000 and 28,000 trees in the streets of the city. This will give an idea not only of the mortality occurring among these trees, but of the work of the department in the removal of dead trees and the planting of young ones. To take down, uproot, and remove an old tree will cost from \$15 to \$50, sometimes even more, and to replace it with a young one, including the cost and carting, loam, labor, etc., will cost \$10 more for each tree so treated on the average. The general planting of new trees will cost from \$5 to \$10, according to conditions and circumstances of soil. To make the many removals of old trees and their replacing by young ones, I have had to use the means comprised in my regular scrimped appropriations, and that the amounts which I have had thus to use have been very large in the aggregate I need hardly add. Formerly I had to purchase the young trees used in planting from the trade, and they were seldom satisfactory. Since, however, I have had a department nursery, the city has not only supplied its own wants in tree production, but has since given away to individuals thousands of young trees every year.

In connection with the giving away of trees annually I would suggest that the city in the future give away, say, 3,000

trees annually, instead of 1,500, as it has been doing. There should be some conditions coupled with this bestowal, one of which is that they be all set out on Arbor day in the spring season; and the other, that the parties receiving them should be held to plant them at their own expense, and under the directions of this department, on the streets in front of their estate or contiguous streets, but on the public streets.

I am aware that it has been said that in giving away trees to plant we intrust them to people who do not know how to plant them. This can hardly be the case when it can be shown that out of the 1,500 trees given out last year not two per cent. of them failed to grow after planting. To every person who obtains trees from the city we give a circular which fully directs and explains how to plant them. The great trouble in planting trees is that they are set too deep, their roots being placed below the ready influence of light, heat, and air. This is fully explained in the circular, and that it has been generally lived up to by recipients of trees results plainly show.

Of the Committee on Public Grounds, under whose general instructions I have acted, I am happy to say that they are entitled to my highest respect for their able consideration of all matters submitted to them in connection with the department, and merit the cordial approval of their fellow-citizens for the devotion, time, energy, and ability they have shown in the trusts committed to them.

Inasmuch as the assertion has been made that only 5 per cent. of the money intrusted to me has been expended for labor, I beg to say that the financial account will show that 60 per cent. of the general appropriation, and 35 per cent. of the special appropriations, where labor was possible, has been expended for that purpose.

In conclusion, I wish most earnestly to express heartfelt thanks to my assistants and the employees of this department for their intelligent coöperation and their faithful adherence to duty in carrying out the preformulated plans of the department.

Respectfully submitted,

WM. DOOGUE,  
*Superintendent.*

As a convenient reference, I append the following list of the seventy parks and squares which are in charge of the Department of Public Grounds, showing their respective localities and superficial areas:

#### CITY PROPER.

*Common.* — Park, Tremont, Boylston, Charles, and Beacon streets; contains  $48\frac{2}{5}$  acres;<sup>1</sup> enclosed by an iron fence.

*Public Garden.* — Charles, Boylston, Arlington, and Beacon streets; contains  $24\frac{1}{2}$  acres; enclosed by an iron fence.

*Fort Hill Square.* — Oliver and High streets; contains 29,480 sq. ft.

*Franklin Square.* — Washington, East Brookline, East Newton, and James streets; contains 105,205 sq. ft.

*Blackstone Square.* — Washington, West Brookline, West Newton, and Shawmut avenue; contains 105,100 sq. ft.

*East Chester Park.* — Between Albany street and Harrison avenue; contains 9,300 sq. ft.

*Chester Park.* — Between Harrison avenue and Washington street; contains 13,050 sq. ft.

*Chester Square.* — Between Washington and Tremont streets; contains 74,000 sq. ft.; malls enclosed by an iron fence.

*West Chester Park.* — Between Tremont street and Columbus avenue; contains 10,150 sq. ft.

*Concord Square.* — Between Tremont street and Columbus avenue; contains 5,000 sq. ft.

*Rutland Square.* — Between Tremont street and Columbus avenue; contains 7,400 sq. ft.

*Berwick Park.* — Off Columbus avenue; contains 3,800 sq. ft.; enclosed by granite curb.

*Greenwich Park.* — Off Columbus avenue; contains 4,100 sq. ft.; enclosed by granite curb.

*Commonwealth Avenue.* — From Arlington street to West Chester park (malls); contains 429,500 sq. ft.

*Union Park.* — Between Tremont street and Shawmut avenue; contains 16,000 sq. ft.; malls enclosed by iron fence.

*Worcester Square.* — Between Washington street and Harrison avenue; contains 16,000 sq. ft.

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<sup>1</sup> Exclusive of cemetery, containing one and two-fifths acres.

*Lowell Square.* — Cambridge and Lynde streets; contains 5,772 sq. ft.; malls enclosed by iron fence.

*Park Square.* — Columbus avenue, Eliot and Pleasant streets; contains 2,867 sq. ft.

*Montgomery Square.* — Tremont, Clarendon, and Montgomery streets; contains 550 sq. ft.

*Pemberton Square.* — Between Tremont row and Somerset street; contains 3,390 sq. ft.

*Copley Square.* — Between Huntington avenue, Boylston, and Dartmouth streets; contains 28,399 sq. ft.; enclosed by a granite curb.

Between Huntington avenue, Trinity place, and St. James avenue; contains 5,410 sq. ft.; enclosed by a granite curb.

*City Hall Grounds.* — School street; contains 7,700 sq. ft.

*Square.* — Harrison avenue, between Union park and Wal-  
tham streets.

#### SOUTH BOSTON.

*Telegraph Hill.* — Thomas park; contains 190,000 sq. ft.

*Independence Square.* — Broadway, Second, M, and N; contains 6½ acres; enclosed by an iron fence.

*Lincoln Square.* — Emerson, Fourth, and M; contains 9,510 sq. ft.; enclosed by an iron fence.

*Commonwealth Park.*

#### EAST BOSTON.

*Maverick Square.* — Sumner and Maverick streets; contains 4,398 sq. ft.; enclosed by an iron fence.

*Central Square.* — Meridian and Border streets; contains 32,310 sq. ft.; enclosed by an iron fence.

*Belmont Square.* — Webster, Sumner, Lamson, and Seaver streets; contains 30,000 sq. ft.; enclosed by an iron fence.

*Putnam Square.* — Putnam, White, and Trenton streets; contains 11,628 sq. ft.; enclosed by an iron fence.

*Prescott Square.* — Trenton, Eagle, and Prescott streets; contains 12,284 sq. ft.

#### ROXBURY DISTRICT.

*Madison Square.* — Sterling, Marble, Warwick, and Westminster streets; contains 122,191 sq. ft.

*Orchard Park.* — Chadwick, Orchard Park, and Yeoman streets; contains 99,592 sq. ft.

*Washington Park.* — Dale and Bainbridge streets; contains 396,125 sq. ft.

- Longwood Park.* — Park and Austin streets ; contains 21,000 sq. ft.
- Walnut Park.* — Between Washington street and Walnut avenue ; contains 5,736 sq. ft.
- Lewis Park.* — Highland street and Highland avenue ; contains 5,600 sq. ft.
- Bromley Park.* — From Albert to Bickford street ; contains 20,975 sq. ft. ; three enclosures.
- Fountain Square.* — Walnut avenue, from Munroe to Townsend streets ; contains 116,000 sq. ft.
- Cedar Square.* — Cedar street, between Juniper and Thornton streets ; contains 26,163 sq. ft.
- Linwood Park.* — Centre and Linwood streets ; contains 3,625 sq. ft. ; enclosed by stone curb.
- Public Ground.* — Centre and Perkins streets ; contains 3,200 sq. ft.
- Highland Park.* — Fort Hill avenue ; contains 114,065 sq. ft.
- Public Ground.* — Warren, James, and Regent streets ; contains 1,380 sq. ft.
- Public Ground.* — Junction of Huntington avenue, Tremont and Francis streets ; contains 1,662 sq. ft.
- Playground.* — Fellows street, between Hunneman street and Fellows place ; contains 25,000 sq. ft.
- Square.* — Albany street.

## DORCHESTER DISTRICT.

- Dorchester Square.* — Meeting-House Hill ; contains 56,200 sq. ft. ; Soldiers' Monument on this square.
- Eaton Square.* — Adams and Bowdoin streets ; contains 13,280 sq. ft.
- Mt. Bowdoin Green.* — Top of Mt. Bowdoin ; contains 25,170 sq. ft.
- Richardson Square.* — Between Pond and Cottage streets ; contains 75,982 sq. ft.
- Public Ground.* — Magnolia street ; contains 3,605 sq. ft.
- Public Ground.* — Dorchester Field ;<sup>1</sup> contains 274,000 sq. ft.
- Public Ground.* — Adams street, near Pierce avenue.
- Public Ground.* — “ “ Cedar Grove Cemetery.

## CHARLESTOWN DISTRICT.

- City Square.* — Head of Bow and Main streets ; contains 8,739 sq. ft. ; enclosed by stone curb.
- Public Ground.* — Water street, Charles River avenue and Warren avenue ; contains 3,055 sq. ft. ; enclosed by a stone curb.

<sup>1</sup> Property of Gibbon School Fund.



*Sullivan Square.* — Main, Cambridge, Sever, and Gardner streets ; contains 56,428 sq. ft.

*Winthrop Square.* — Winthrop, Common, and Adams streets ; contains 38,450 sq. ft. ; enclosed by an iron fence ; Soldiers' Monument on this square.

*Public Ground.* — Essex and Lyndeboro streets ; contains 930 sq. ft.

#### WEST ROXBURY DISTRICT.

*Public Ground.* — Shore of Jamaica Pond ; contains 31,000 sq. ft.

*Soldiers' Monument Lots.* — South and Central streets ; contains 5,870 sq. ft.

*Public Ground.* — Top of Mt. Bellevue ; contains 27,772 sq. ft.

#### BRIGHTON DISTRICT.

*Public Ground.* — Pleasant and Franklin streets ; contains 1,900 sq. ft.

*Jackson Square.* — Chestnut Hill avenue, Union and Winship streets ; contains 4,300 sq. ft. ; enclosed by stone curb.

*Brighton Square.* — Between Chestnut Hill avenue and Rockland street, and opposite branch of Public Library ; contains 25,035 sq. ft.

*Franklin Square.* — Between Franklin and Fern streets ; contains 1,900 sq. ft.

*Rogers Park.* — Foster street ; contains 7 acres.

*Roxbury Canal Lands.* — Bounded by East Chester park, Albany and Northampton streets, and a common passageway ; contains 130,493 sq. ft. ; used for storage, greenhouses, hot-beds, etc.

## CENSUS OF TREES, COMPLETED DEC. 1, 1891.

## Ward 1.

	Large.	Medium.	Small.	Damaged.	Dead.	Total.	Remarks.
Bennington st. ....	5		3			8	
Breed st. ....			24			24	
Bremen st. ....	24			18		24	18 badly gnawed.
Brook st. ....	12	16		5		28	5 gnawed.
Byron st. ....			5			5	
Central sq. ....	90					90	
Chelsea st. ....	36		4	17	3	40	17 gnawed.
Condor st. ....		1				1	
Eagle st. ....		4				4	
Eutaw st. ....	43	6	2	29		51	29 gnawed.
Falcon st. ....		10				10	
Ford st. ....			18			18	
Gladstone st. ....			25			25	
Lexington st. ....	70	10	3	39		83	39 gnawed.
Leyden st. ....			8			8	
Marion st. ....	17	5		7		22	7 gnawed.
Meridian st. ....	88	6	2	35	5	96	5 dead, 35 gnawed.
Monmouth st. ....	7	19		7		26	7 gnawed.
Moore st. ....			6			6	
Morris st. ....		4				4	
Porter st. ....		1				1	
Prescott st. ....		2	4			6	
Prescott sq. ....		11				11	
Princeton st. ....	77	6		35	1	83	35 gnawed.
Putnam sq. ....		13				13	
Putnam st. ....	19			5		19	5 gnawed.
Saratoga st. ....	106	13		31		119	31 gnawed.
Swift st. ....			1			1	
Trenton st. ....	49	12	1	15	1	62	15 gnawed.
Walley st. ....		35				35	
Wordsworth st. ....			6			6	
White st. ....	18	12	3	7		33	7 gnawed.
Totals .....	661	186	115	250	10	962	

## Ward 2.

	Large.	Medium.	Small.	Damaged.	Dead.	Total.	Remarks.
Belmont sq. ....	47	...	...	...	...	47	
Border st. ....	24	...	...	8	3	24	8 gnawed.
Cottage st. ....	14	...	...	5	...	14	5 gnawed.
Decatur st. ....	1	...	...	...	...	1	
Everett st. ....	33	...	...	7	...	33	7 gnawed.
Havre st. ....	30	16	1	17	...	47	17 gnawed.
Haynes st. ....	1	...	...	...	...	1	
Henry st. ....	6	...	...	3	...	6	3 gnawed.
Jefferson st. ....	2	...	...	1	...	2	1 gnawed.
Lampson st. ....	20	...	...	3	...	20	3 gnawed.
Lewis st. ....	2	...	...	2	...	2	2 gnawed.
Liverpool st. ....	21	2	1	16	...	24	16 gnawed.
London st. ....	40	3	...	20	3	43	20 gnawed.
Marginal st. ....	18	2	...	6	...	20	6 gnawed.
Maverick st. ....	55	...	...	29	2	55	29 gnawed.
Maverick sq. ....	9	...	...	...	...	9	
New st. ....	1	2	...	1	...	3	1 gnawed.
Orleans st. ....	2	...	...	...	...	2	
Paris st. ....	49	6	...	15	1	55	15 gnawed.
Sever st. ....	8	...	...	1	...	8	1 gnawed.
Sumner st. ....	101	10	...	36	5	111	36 gnawed.
Webster st. ....	155	3	...	61	5	158	61 gnawed.
Winthrop st. ....	2	...	...	1	...	2	1 gnawed.
Totals .....	641	44	2	232	19	687	

## Ward 3.

Chelsea st. ....	...	19	...	6	3	19	6 gnawed.
Concord st. ....	19	8	...	7	...	27	7 gnawed.
Decatur st. ....	1	...	...	...	...	1	
Edgeworth st. ....	2	...	...	...	...	2	
Elm st. ....	21	6	...	20	...	27	20 gnawed.
High st. ....	34	3	...	8	...	37	8 gnawed.
Jackson st. ....	2	...	...	2	...	2	2 gnawed.
Lexington st. ....	43	12	...	12	...	55	12 gnawed.
Marion st. ....	3	...	...	2	...	3	2 gnawed.
Medford st. ....	...	3	...	...	1	3	
Monument st. ....	12	7	...	3	...	19	3 gnawed.
Monument sq. ....	26	29	...	6	...	55	6 gnawed.
Moulton st. ....	1	...	1	2	...	2	2 gnawed.
Mystic st. ....	1	5	...	2	...	6	2 gnawed.
Pearl st. ....	28	3	...	11	...	31	11 gnawed.
Polk st. ....	3	1	...	2	...	4	2 gnawed.
Princeton st. ....	...	1	...	...	...	1	
Sumner st. ....	3	...	...	...	...	3	
Tremont st. ....	1	2	...	1	...	3	1 gnawed.
Tufts st. ....	1	2	2	1	...	5	1 gnawed.
Vine st. ....	2	13	...	6	...	15	6 gnawed.
Totals .....	203	114	3	91	4	320	

## Ward 4.

	Large.	Medium.	Small.	Damaged.	Dead.	Total.	Remarks.
Albion pl. ....	4			2		4	2 gnawed.
Allston st. ....	1					1	
Auburn st. ....	1					1	
Baldwin st. ....	5			3		5	3 gnawed.
Bartlett st. ....	10	5		5	1	15	5 gnawed.
Brighton st. ....	5	2		1		7	1 gnawed.
Bunker Hill st. ....	61	17		36	1	78	36 gnawed.
Cambridge st. ....	4	4			2	8	
Essex st. ....		8		2		8	2 gnawed.
Haverhill st. ....		17		4		17	4 gnawed.
Lyndeboro st. ....	2			1		2	1 gnawed.
Mead st. ....	9	1		2		10	2 gnawed.
Oak st. ....	4			2		4	2 gnawed.
Parker st. ....	3	23				26	
Perkins st. ....	9					9	
Russell st. ....	7			4		7	4 gnawed.
Sever st. ....	1	2		1		3	1 gnawed.
Sullivan sq. ....	19	17	7			43	
Totals .....	145	96	7	63	4	248	

## Ward 5.

Adams st. ....	5					5	
Austin st. ....	5	5		8		10	8 gnawed.
Bow st. ....	2				2	2	
Chapman st. ....			2	2		2	2 gnawed.
Chestnut st. ....	15	11		3	1	26	3 gnawed.
City sq. ....	2					2	
Cordis st. ....	16			2		16	2 gnawed.
Devens st. ....	6			1		6	1 gnawed.
Green st. ....	24	8		14		32	14 gnawed.
Harvard st. ....	10	7		3		17	3 gnawed.
Harvard sq. ....	3	16		6		19	6 gnawed.
Lincoln st. ....		5		2		5	2 gnawed.
Main st. ....	60	8		33	3	68	33 gnawed.
Monument ave. ....	8			4		8	4 gnawed.
Mount Vernon st. ....	3	2		1		5	1 gnawed.
Park st. ....	1					1	
Rutherford ave. ....	2			2		2	2 gnawed.
Salem st. ....	4			1		4	1 gnawed.
School st. ....	1					1	
Union st. ....	24			12		24	12 gnawed.
Walker st. ....	1					1	
Warren st. ....	10			4		10	4 gnawed.
Washington st. ....	31	6		14		37	14 gnawed.
Winthrop sq. ....	11		6	2		17	2 gnawed.
Totals .....	244	68	8	114	6	320	

## Ward 7.

	Large.	Medium.	Small.	Damaged.	Dead.	Total.	Remarks.
Baldwin pl. ....	1	...	...	...	...	1	
Cooper st. ....	6	...	...	4	...	6	4 gnawed.
Lowell sq. ....	14	1	...	1	...	15	1 split.
Noyes pl. ....	1	...	...	...	...	1	
Totals .....	22	1	...	5	...	28	

## Ward 8.

Allen st. ....	11	7	...	12	...	18	12 gnawed.
Chamber st. ....	3	5	...	6	2	8	6 gnawed.
Lowell st. ....	3	...	...	3	...	3	
McLean st. ....	19	...	...	16	...	19	16 gnawed.
North Charles st. ....	...	32	...	...	...	32	
South Russell st. ....	2	1	...	...	...	3	
Willard st. ....	8	...	...	8	...	8	All badly gnawed.
Totals .....	46	45	...	45	2	91	

## Ward 9.

Beacon st. ....	30	...	...	...	...	30	
Charles st. ....	10	27	1	32	5	38	32 gnawed.
Chestnut st. ....	37	6	...	15	1	43	15 gnawed.
Joy st. ....	2	...	...	...	...	2	
Revere st. ....	...	15	...	9	...	15	9 gnawed.
Mt. Vernon st. ....	32	6	...	4	2	38	4 gnawed.
Totals .....	111	54	1	60	8	166	

## Ward 10.

	Large.	Medium.	Small.	Damaged.	Dead.	Total.	Remarks.
Bowdoin st.....	6	...	...	3	...	6	3 gnawed.
Boylston st.....	17	...	...	1	...	17	1 decaying.
Boston Common.....	751	183	294	...	...	1228	
Bulfinch pl.....	...	2	...	...	...	2	
Charles st.....	9	41	...	6	...	50	6 gnawed.
Essex st.....	1	...	...	1	...	1	1 gnawed.
Hancock st.....	...	2	...	...	...	2	
Hudson st.....	5	...	...	5	...	5	5 gnawed.
Harrison ave.....	5	3	...	6	2	8	6 gnawed.
Public Garden.....	211	223	38	...	...	472	
Tyler st.....	3	1	...	3	...	4	3 gnawed.
Totals.....	1008	455	332	25	2	1795	

## Ward 11.

Beacon st.....	...	...	9	...	...	9	
Berkeley st.....	...	6	...	...	...	6	
Berwick park.....	...	14	...	...	...	14	
Boylston st.....	...	31	1	...	...	32	
Carver st.....	...	13	...	11	1	13	11 badly gnawed.
Chandler st.....	...	7	...	...	...	7	
Clarendon st.....	...	11	...	...	...	11	
Columbus ave.....	...	20	3	5	...	23	5 gnawed.
Commonwealth ave., 8 sections.....	143	277	24	...	...	444	
Commonwealth ave., on street.....	8	15	3	...	...	26	
Dartmouth st.....	...	4	1	4	...	5	4 gnawed.
Exeter st.....	1	8	...	...	...	9	
Fairfield st.....	...	2	...	...	...	2	
Fayette st.....	...	1	...	...	1	1	
Gloucester st.....	...	2	1	...	...	3	
Hereford st.....	...	2	...	...	...	2	
Holyoke st.....	...	5	2	...	...	7	
Huntington ave.....	...	7	2	...	...	9	
Lawrence st.....	...	11	...	3	...	11	3 gnawed.
Marlboro st.....	...	48	22	12	1	70	12 gnawed.
Newbury st.....	4	64	12	...	...	80	
Park sq.....	1	1	...	...	...	2	
Providence st.....	...	3	5	...	...	8	
St. Charles st.....	...	3	...	...	...	3	
Warren ave.....	7	...	...	...	...	7	
W. Canton st.....	...	2	...	...	...	2	
W. Newton st.....	...	11	...	...	...	11	
Totals.....	164	568	85	35	3	817	

## Ward 12.

	Large.	Medium.	Small.	Damaged.	Dead.	Total.	Remarks.
Albany st. ....	3	...	...	2	...	3	2 gnawed.
Fort Hill sq. ....	...	...	37	...	...	37	
Harrison ave. ....	54	3	...	50	2	57	50 gnawed.
Hollis st. ....	6	...	...	3	...	6	3 gnawed.
Hudson st. ....	16	...	...	13	1	16	13 gnawed.
Pine st. ....	...	2	...	2	...	2	2 gnawed.
Tyler st. ....	16	4	...	14	1	20	14 gnawed.
Totals. ....	95	9	37	84	4	141	

## Ward 13.

A st. ....	17	...	...	1	...	17	
B st. ....	30	3	...	...	...	33	Dead limbs.
C st. ....	20	...	...	...	...	20	
D st. ....	40	...	3	36	...	43	36 gnawed.
Dorchester ave. ....	6	...	...	5	...	6	4 gnawed, 1 cracked.
Foundry st. ....	12	1	...	...	...	13	
Ontario st. ....	1	...	...	...	...	1	
West Broadway ....	83	11	4	...	2	98	
West Second st. ....	17	...	...	1	...	17	1 gnawed.
West Third st. ....	39	2	7	1	...	48	1 gnawed.
West Fourth st. ....	61	7	1	...	...	69	
West Fifth st. ....	40	4	1	2	...	45	2 gnawed.
West Sixth st. ....	17	...	...	1	...	17	1 gnawed.
West Seventh st. ....	23	...	...	...	...	23	
Totals. ....	406	28	16	47	2	450	

## Ward 14.

	Large.	Medium.	Small.	Damaged.	Dead.	Total.	Remarks.
Atlantic st. ....	2	...	...	...	...	2	
Dorchester st. ....	22	...	...	...	...	22	
Emerson st. ....	6	...	5	...	...	11	
E st. ....	5	...	...	2	...	5	2 gnawed.
F st. ....	6	...	...	...	...	6	
G st. ....	28	46	...	...	...	74	
H st. ....	12	...	2	...	...	14	
I st. ....	16	9	10	...	...	35	
K st. ....	108	...	...	...	...	108	A great lot of dead wood.
L st. ....	32	...	...	...	...	32	
M st. ....	33	26	2	...	...	61	
N st. ....	8	16	9	...	...	33	
O st. ....	...	2	...	...	...	2	
P st. ....	14	22	...	...	...	36	
Q st. ....	...	12	...	...	...	12	
East First st. ....	88	...	2	...	...	90	
East Second st. ....	23	...	5	...	...	28	
East Third st. ....	12	...	2	...	...	14	
East Fourth st. ....	108	29	22	...	...	159	
East Fifth st. ....	65	39	20	...	...	124	
East Sixth st. ....	24	40	27	...	...	91	
East Seventh st. ....	88	1	9	...	...	98	17 large in middle of sidewalk.
East Eighth st. ....	80	2	1	...	...	83	
East Ninth st. ....	26	...	...	...	...	26	
East Broadway ....	61	40	38	...	...	139	
Independence sq. ....	56	72	41	...	...	169	
Linden st. ....	21	1	...	...	...	22	
Old Harbor st. ....	18	5	...	...	...	23	
Telegraph Hill ....	141	13	16	...	...	170	
Thomas park. ....	108	...	2	...	...	110	
West Broadway ....	27	...	...	...	3	27	Lots of dead wood; 3 dead.
West Second st. ....	12	...	...	2	...	12	
West Third st. ....	38	...	1	...	1	39	Lots of dead wood.
Lincoln sq. ....	...	...	12	...	...	12	
Totals .....	1288	375	226	4	4	1889	



## Ward 15.

	Large.	Medium.	Small.	Damaged.	Dead.	Total.	Remarks.
Baxter st.....	14	1	4	6	...	19	6 gnawed.
Boston st. ....	19	...	...	1	...	19	1 gnawed.
Dexter st. ....	7	...	...	3	...	7	3 gnawed.
Dorchester st.....	65	11	2	3	...	78	Dead wood.
Dorchester ave. ....	37	4	...	4	...	41	4 gnawed.
Dorset st. ....	...	...	30	...	...	30	
E st. ....	25	...	...	...	...	25	
East Eighth st. ....	1	...	...	...	...	1	
F st. ....	55	1	2	...	...	58	
Gates st. ....	13	14	...	...	...	27	
Jenkins st. ....	10	...	...	4	...	10	4 gnawed.
Loring st. ....	...	2	...	2	...	2	2 gnawed.
Mercer st. ....	12	1	...	...	...	13	1 gnawed.
Telegraph st. ....	8	6	...	...	...	14	
W. Broadway. ....	41	...	...	...	...	41	
W. Fourth st. ....	50	...	...	...	...	50	
W. Fifth st. ....	37	9	3	...	...	49	
W. Sixth st. ....	26	...	4	...	...	30	
W. Seventh st. ....	25	2	...	...	1	27	
W. Ninth st. ....	3	...	3	...	...	6	
Totals .....	448	51	48	23	1	547	

## Ward 16.

	Large.	Medium.	Small.	Damaged.	Dead.	Total.	Remarks.
Ashland pl. ....	11	1	...	...	...	12	
Berkeley st. ....	1	1	...	...	...	2	
Briggs pl. ....	...	10	...	...	...	10	
Chapman st. ....	...	1	...	...	...	1	
Dover st. ....	15	6	...	14	...	21	14 gnawed.
Dwight st. ....	21	10	...	6	...	31	6 gnawed.
Emerald st. ....	3	...	...	2	...	3	2 gnawed.
Harrison ave. ....	10	...	...	10	...	10	All gnawed.
Milford st. ....	4	4	...	3	...	8	3 all gnawed.
Oswego st. ....	1	...	...	1	...	1	1 all gnawed.
Shawmut ave. ....	13	2	...	6	...	15	6 all gnawed.
Tremont st. ....	...	2	...	...	...	2	
Washington st. ....	9	2	...	6	1	11	
Totals ....	88	39	...	48	2	127	

## Ward 17.

	Large.	Medium.	Small.	Damaged.	Dead.	Total.	Remarks.
Appleton st. ....	35	7	1	2	....	48	2 gnawed.
Ashland pl. ....	10	2	....	....	....	12	
Berkeley st. ....	2	....	....	....	....	2	
East Brookline st. ....	....	6	1	....	....	7	
West Brookline st. ....	10	1	1	3	....	12	1 gnawed.
East Canton st. ....	24	1	....	2	....	25	2 dead, several gnawed.
West Canton st. ....	80	1	....	1	....	81	1 gnawed.
Clarendon st. ....	6	2	....	1	....	8	
Cottage pl. ....	2	....	....	....	....	2	
Dartmouth st. ....	9	4	....	....	....	13	
West Dedham st. ....	3	2	....	....	....	5	
Hanson st. ....	19	2	....	3	1	21	3 gnawed.
Harrison ave. ....	1	1	....	....	....	2	
Malden st. ....	4	....	....	4	....	4	All badly gnawed.
Milford st. ....	10	....	....	3	....	10	3 gnawed.
Montgomery sq. ....	5	....	....	....	....	5	
Ringgold st. ....	4	....	....	....	....	4	
Shawmut ave. ....	41	7	1	2	....	49	1 gnawed.
Tremont st. ....	63	....	....	8	....	63	Several gnawed.
Union park. ....	18	3	....	....	....	21	
Union park sidewalk. ....	17	....	....	....	....	17	
Union Park st. ....	1	....	....	....	....	1	
Upton st. ....	2	....	....	....	....	2	
Waltham st. ....	9	10	1	....	....	20	
Warren ave. ....	25	2	....	2	....	27	2 badly gnawed.
Washington st. ....	33	....	....	17	....	33	17 badly gnawed; lots of dead wood.
Totals .....	383	51	5	48	1	439	

## Ward 18.

	Large.	Medium.	Small.	Damaged.	Dead.	Total.	Remarks.
Blackstone sq.....	68	15	24	.....	.....	107	
East Brookline st....	10	2	.....	.....	.....	12	
West Brookline st....	20	.....	.....	.....	.....	20	
Chester park.....	.....	38	.....	.....	.....	38	
East Chester park....	.....	26	.....	.....	.....	26	
West Chester park....	.....	18	.....	.....	.....	18	
Chester sq. ....	4	33	.....	.....	.....	37	
Chestersq. sidewalks.	58	.....	.....	2	.....	58	2 gnawed.
Chester sq. enclosure.	34	.....	4	.....	.....	38	
Columbus ave.....	8	18	3	6	1	29	Several gnawed.
Concord sq. ....	.....	13	.....	.....	.....	13	
East Concord st.....	7	2	22	8	1	31	3 gnawed.
West Concord st.....	35	5	1	.....	.....	41	
Franklin sq. ....	56	23	30	3	.....	109	
Harrison ave.....	4	.....	.....	1	.....	4	1 gnawed.
James st. ....	10	.....	2	.....	.....	12	
East Newton st.....	9	2	7	.....	.....	18	
West Newton st.....	31	21	1	1	.....	53	1 gnawed; some dead wood.
Northampton st.....	31	1	.....	6	.....	32	Several gnawed.
Pembroke st. ....	5	2	.....	.....	.....	7	
Rutland st. ....	45	2	.....	4	.....	47	4 gnawed; some dead wood.
Rutland sq. ....	.....	5	9	.....	.....	14	
Sharon st. ....	10	2	.....	5	.....	12	5 gnawed.
Shawmut ave.....	43	.....	2	4	.....	45	4 gnawed.
East Springfield st...	13	13	.....	9	.....	26	9 gnawed.
West Springfield st...	27	9	5	.....	.....	41	
Stoughton st. ....	.....	.....	1	.....	.....	1	
Tremont st. ....	84	4	.....	20	.....	88	Many badly gnawed.
Washington st.....	72	.....	6	13	.....	78	18 gnawed near Lenox st.
Wellington st.....	1	.....	.....	.....	.....	1	
Worcester st.....	42	7	.....	2	.....	49	2 gnawed.
Worcester sq. side-walk.....	7	1	.....	2	.....	8	2 gnawed.
Worcester sq. enclosure.....	23	.....	.....	.....	.....	23	
Totals .....	757	262	117	81	2	1136	

## Ward 19.

	Large.	Medium.	Small.	Damaged.	Dead.	Total.	Remarks.
Auburn st. ....	22	6	....	18	....	28	
Benton st. ....	....	1	....	....	1	1	
Cabot st. ....	2	....	....	2	....	2	2 gnawed.
Camden st. ....	25	....	2	5	....	27	5 gnawed.
Cottage pl. ....	1	....	....	....	....	1	
Coventry st. ....	1	2	....	....	....	3	
Elmwood st. ....	20	1	2	....	....	23	
Lenox st. ....	5	....	....	5	....	5	5 gnawed.
Madison park. ....	77	20	75	....	....	172	
Ruggles st. ....	8	....	....	....	1	8	
Sarsfield st. ....	6	....	....	....	....	6	
Shawmut ave. ....	26	....	3	20	1	29	20 gnawed.
Sterling st. ....	....	....	4	....	....	4	
Terry st. ....	1	....	....	....	....	1	
Tremont st. ....	41	4	4	32	....	49	32 gnawed.
Vernon st. ....	29	2	....	20	....	31	20 gnawed.
Washington st. ....	19	....	....	15	1	19	15 gnawed.
Weston st. ....	4	....	....	....	....	4	
Williams st. ....	1	....	....	....	....	1	
Willow park ....	13	....	....	....	....	13	
Windsor st. ....	....	....	2	....	....	2	
Totals .....	301	36	92	117	4	429	

## Ward 20.

	Large.	Medium.	Small.	Damaged.	Dead.	Total.	Remarks.
Adams st. ....	36	1	...	21	...	37	18 gnawed; lots of dead wood.
Alexander st. ....	...	...	1	...	...	1	
Bird st. ....	4	2	...	...	...	6	
Blue Hill ave. ....	37	3	...	...	...	40	
Brook ave. ....	14	6	1	...	...	21	
Chadwick st. ....	9	3	...	5	...	12	5 gnawed.
Cherry st. ....	8	2	...	1	1	10	1 gnawed.
Clarence st. ....	4	...	...	4	...	4	All gnawed.
Clifton st. ....	3	4	...	...	...	7	
Converse st. ....	2	...	1	...	...	3	
Dennis st. ....	1	...	...	...	...	1	
Dudley st. ....	56	11	...	15	...	67	15 gnawed.
Cottage st. ....	29	...	...	...	...	29	
Eustis st. ....	45	...	...	4	...	45	4 gnawed.
Folsom st. ....	1	9	...	...	...	10	
Forest st. ....	45	...	...	...	...	45	All close to fence line.
George st. ....	1	...	...	...	...	1	
Hampden st. ....	3	...	...	3	...	3	All gnawed.
Howard st. ....	57	...	...	...	...	57	
Huckins ave. ....	2	...	...	...	...	2	
Magazine st. ....	...	2	...	...	...	2	
Magnolia st. ....	72	4	...	2	...	76	1 badly barked, 1 split.
Mall st. ....	17	...	...	...	...	17	
Monadnock st. ....	...	7	...	...	...	7	
Mt. Pleasant ave. ....	70	...	...	...	...	70	
Norfolk st. ....	22	...	...	1	...	22	1 gnawed.
Orchard Park. ....	...	77	...	...	...	77	
Orchard st. ....	11	...	...	2	...	11	1 gnawed.
Orchard Park st. ....	7	...	...	1	...	7	2 gnawed.
Sargent st. ....	...	4	...	...	...	4	
Shirley st. ....	...	2	...	...	...	2	
Vine st. ....	17	...	...	...	...	17	
Virginia st. ....	...	...	8	...	...	8	
Wayland st. ....	3	6	...	...	...	9	
Weber st. ....	2	...	...	1	...	2	1 gnawed.
Woodville st. ....	8	...	6	...	...	14	
Woodward ave. ....	2	...	...	...	...	2	
Yeoman st. ....	7	...	...	2	...	7	2 gnawed.
Zeigler st. ....	1	...	...	...	...	1	
Totals. ....	596	143	17	62	1	766	

## Ward 21.

	Large.	Medium.	Small.	Damaged.	Dead.	Total.	Remarks.
Akron st. ....	1	1				2	
Alpine st. ....	6	2		5		8	5 gnawed.
Aspen st. ....	1					1	
Bainbridge st. ....	1					1	
Bartlett st. ....	6		1			7	
Beech Glen st. ....	3	1				4	
Buena Vista ave. ....	3					3	
Bowers st. ....	6		6	1		12	1 gnawed.
Carlisle st. ....	2					2	
Catawba st. ....	28	2		7		30	7 gnawed.
Cedar park ....		44	6			50	
Cedar st. ....	55	25		22		80	22 gnawed.
Centre st. ....	27	12		12		39	12 gnawed.
Cheney st. ....		2	13	1		15	1 gnawed.
Circuit st. ....	9	2		5		11	5 gnawed.
Copeland st. ....	1	50				51	
Copeland pl. ....		2				2	
Crawford st. ....	13		2			15	
Dale st. ....	19	7	3	11		29	11 gnawed.
Devon st. ....		2				2	
Dorr st. ....	4					4	
Dudley st. ....	18			15		18	15 gnawed.
Edgewood st. ....	11					11	
Ellis st. ....	1	3				4	
Elm Hill ave. ....	88		27			115	
Elmore st. ....	2	5		3		7	3 gnawed.
Fountain sq. ....	61	88	5			154	
Fountain st. ....	6			5		6	5 gnawed.
Greenwood st. ....	8					8	
Harold st. ....	3					3	
Hazelwood st. ....	3					3	
Highland ave. ....	10					10	
Highland st. ....	42	15		12		57	12 gnawed.
Holborn st. ....	1	2		1		3	1 gnawed.
Homestead st. ....			5	2		5	2 gnawed.
Howland st. ....	1		11			12	
Kenilworth st. ....	26			11		26	11 gnawed.
Kingsbury st. ....			7			7	
Lambert ave. ....	7					7	
Lambert st. ....	11			7		11	7 gnawed.
Laurel st. ....	3					3	
Lewis park ....	8		2			10	
Linwood park ....	5	2				7	
Maple st. ....		8	4			12	
Marcella st. ....	29					29	
Maywood st. ....	1			1		1	Gnawed.
Millmont st. ....	13			5		13	5 gnawed.
Monroe st. ....	6					6	
Montrose st. ....	31			15		31	15 gnawed.
New Heath st. ....	1					1	
Norfolk st. ....	5					5	
Oakland st. ....	10					10	
Ottawa st. ....	22			10		22	10 gnawed.
Perrin st. ....	25	3		5		28	5 gnawed.
Carried forward ..	648	278	92	156		1018	

Ward 21. — *Concluded.*

	Large.	Medium.	Small.	Damaged.	Dead.	Total.	Remarks.
<i>Brought forward..</i>	648	278	92	156	....	1018	
Regent st. ....	1	....	....	....	....	1	Large tree near curb.
Roxbury st. ....	18	8	....	5	....	26	5 gnawed.
Savin st. ....	3	....	....	....	....	3	
Sever st. ....	5	....	125	....	....	130	
Sherman st. ....	8	....	....	4	....	8	4 gnawed.
Stand-pipe .....	39	35	40	....	....	114	
Sunderland st. ....	....	....	32	3	....	32	3 gnawed.
Thornton st. ....	9	....	....	....	....	9	
Townsend st. ....	18	....	....	....	....	18	
Vale st. ....	7	....	....	2	....	7	2 gnawed.
Wabeno st. ....	....	....	5	....	....	5	
Wabon st. ....	2	4	6	....	....	12	
Wakullah st. ....	1	....	....	1	....	1	1 gnawed.
Walnut park .....	4	....	....	....	....	4	
Walnut ave. ....	21	8	....	....	....	29	
Warren st. ....	93	23	5	....	....	121	23 large.
Warren pl. ....	14	3	....	12	....	17	12 gnawed.
Washington park...	75	148	45	....	....	268	
Washington st. ....	31	17	4	....	1	52	1 partially decayed near Marcella st.
Waumbeck st. ....	1	....	....	....	....	1	
Waverley st. ....	13	14	....	5	....	27	5 gnawed.
Wayne st. ....	1	1	3	....	1	5	
Weiden st. ....	2	....	....	....	....	2	
Wenonah st. ....	....	....	12	....	....	12	
Winthrop st. ....	4	....	....	....	....	4	
Woodbine st. ....	5	4	5	5	....	14	5 gnawed.
Wyoming st. ....	....	5	26	....	....	31	
Zeigler st. ....	1	....	....	....	....	1	
<b>Totals .....</b>	<b>1014</b>	<b>548</b>	<b>400</b>	<b>193</b>	<b>2</b>	<b>1962</b>	

## Ward 22.

	Large.	Medium.	Small.	Damaged.	Dead.	Total.	Remarks.
Autumn st. ....	...	7	1	...	...	8	
Bellerue ave. ....	123	...	...	...	...	123	
Bickford st. ....	1	...	...	...	...	1	
Bromley park. ....	23	...	...	8	...	23	8 gnawed.
Brookline ave. ....	40	...	...	...	2	40	
Charlesgate East ....	...	...	18	...	...	18	
Charlesgate West....	...	...	9	...	...	9	
Commonwealth ave..	20	...	...	...	...	20	
Conant st. ....	...	4	...	...	...	4	
Day st. ....	1	1	...	1	...	2	1 gnawed.
Dell ave. ....	...	...	1	...	...	1	
Falmouth st. ....	...	...	15	...	1	15	
Francis st. ....	15	2	...	10	1	17	12 gnawed.
Heath st. ....	...	9	...	1	...	9	1 gnawed.
Hillside st. ....	14	...	4	...	...	18	
Huntington ave. ....	...	...	10	...	...	10	
Longwood park. ....	48	...	...	...	...	48	
Longwood ave. ....	60	...	...	...	...	60	
Newbury st. ....	...	...	6	...	...	6	
Park st. ....	7	...	...	...	...	7	
Parker st. ....	4	...	...	...	1	4	
Ruggles st. ....	...	3	...	...	...	3	
Smith st. ....	6	...	...	2	...	6	2 gnawed.
Tremont st. ....	35	5	...	2	3	40	1 partly dead.
Wait st. ....	7	...	...	...	...	7	
Welden st. ....	...	4	...	...	...	4	
Westland st. ....	...	...	7	...	...	7	
West Chester park...	...	...	5	...	...	5	
Totals .....	404	35	76	24	8	515	



## Ward 23.

	Large.	Medium.	Small.	Damaged.	Dead.	Total.	Remarks.
Albion st. ....	12			1		12	1 gnawed.
Allandale st. ....	26					26	
Amherst st. ....			5			5	
Amory st. ....	6	4				10	
Anawan ave. ....	10	8				18	
Arnold st. ....	47				1	47	
Ashland st. ....	40	14	50			104	
Atherton ave. ....			2			2	
Atherton st. ....	1					1	
Avon st. ....	27					27	
Baker st. ....	26		169			195	
Beech st. ....	24		47			71	
Belle ave. ....	56					56	
Bellevue park. ....	1		8		1	9	
Bellevue st. ....	57					57	
Bourne st. ....	4		7			11	All large pines.
Boylston st. ....	5					5	
Brandon st. ....		2				2	
Brookside ave. ....	1				1	1	
Brown ave. ....	66		31		1	97	
Bussey st. ....	3					3	
Call st. ....	2					2	
Canterbury st. ....	40		14			54	
Cass st. ....	1					1	
Centre st. ....	588		284			872	
Chestnut ave. ....	13		22	2		35	
Cheshire st. ....	3	2				5	
Church st. ....	105	30			1	135	
Glifton st. ....	13					13	2 gnawed.
Conway st. ....			7			7	
Corey st. ....		89	94			183	
Dale st. ....	5					5	
Dimock st. ....		9			1	9	
Eliot st. ....	50			3		50	
Fairview st. ....			28			28	
Florence st. ....	39				1	39	
Forest Hills st. ....	33					33	
Garden st. ....		17	8			25	
Gardener st. ....	27					27	
Glen road. ....		25			1	25	
Gordon st. ....	6			2		6	2 gnawed.
Gould st. ....			13			13	
Grove st. ....	7		4			11	
Hyde Park ave. ....	1		10			11	
Jamaica pond. ....	31	20				51	
Kittredge st. ....	3		2			5	
Keys st. ....	6				1	6	
Lagrange st. ....	78		14			92	
Lakeville pl. ....	24					24	
Lamartine st. ....	47			5	1	47	
Lee st. ....	1					1	
Linnett st. ....	28	24				52	5 gnawed.
Loretto st. ....			19			19	
Maple st. ....	46		5			51	
Carried forward ..	1609	244	843	13	10	2696	

Ward 23.—*Concluded.*

	Large.	Medium.	Small.	Damaged.	Dead.	Total.	Remarks.
<i>Brought forward..</i>	1609	244	843	13	10	2696	
March ave. ....	5					5	
May st. ....	6					6	
Metropolitan ave. ....			78			78	
Montgomery st. ....	2	4				6	
Mt. Hope st. ....		2				2	
Mozart st. ....	30			5		30	5 gnawed.
Norfolk st. ....			5			5	
Oak st. ....	3					3	
Oakdale st. ....	8			5		8	5 gnawed.
Orchard st. ....	32			1		32	1 gnawed.
Oriole st. ....	2					2	
Park st. ....	17		8			25	
Perkins st. ....	11		5		1	16	
Pond st. ....	91				1	91	1 dead.
Poplar st. ....	27		27			54	
Prince st. ....	21					21	
Prospect ave. ....	16		3			19	
Prospect st. ....		1				1	
Public grounds ....	7					7	
Robeson st. ....	6					6	
Seaverns st. ....	6			1		6	1 gnawed.
School st. ....	15					15	
Sheldon st. ....	2					2	
Sigourney st. ....	1		5			6	
South st. ....	141		22			163	
Spring st. ....	66		22			88	
Spring park st. ....	1					1	
St. John st. ....	4					4	
Summit st. ....			31			31	
Symmes st. ....	2		3			5	
Union ave. ....	1	2				3	
Walk Hill st. ....	7					7	
Walter st. ....	48	57	7			112	
Washington st. ....	153	20				173	
Weld st. ....	266	97	59		4	422	
Willow st. ....	65		45			110	
Woodside ave. ....	26					26	
Wren st. ....	1					1	
Wyman st. ....	52	15		3		67	3 gnawed.
<b>Totals .....</b>	<b>2750</b>	<b>442</b>	<b>1163</b>	<b>28</b>	<b>16</b>	<b>4355</b>	

## Ward 24.

	Large.	Medium.	Small.	Damaged.	Dead.	Total.	Remarks.
Adams st.....	165	49	3	4	5	217	4 gnawed.
Alban st.....		24				24	
Argyle st.....		24				24	
Ashland st.....	14					14	
Ashmont st.....	92			2	2	92	2 gnawed.
Back st.....	185	67			1	252	
Barrington st.....	1					1	
Beach st.....	20			8		20	8 gnawed.
Bellevue st.....	2			2		2	
Blue Hill ave.....	276	7	410		1	693	
Boston st.....	26				1	26	
Buttonwood st.....			4			4	
Boutwell ave.....		26				26	
Bowdoin st.....	32				2	32	
Bowdoin ave.....	30		39	15		69	15 gnawed.
Bushnell st.....	8					8	
Butler st.....			20			20	
Cedar st.....	25			6		25	6 gnawed.
Centre ave.....	24		7		1	36	
Centre st.....	4					4	
Chickatawbut st.....	12		5			17	
Clayton st.....	5					5	
Cobbett st.....			5	2		5	2 gnawed.
Coleman st.....		1	30			31	
Columbia st.....	51			10	3	51	10 gnawed.
Commercial st.....	24			6	1	24	6 gnawed.
Cottage st.....	13			2		13	2 gnawed.
Dickens st.....	6					6	
Dix st.....	1					1	
Dorchester ave.....	320			32	5	320	32 gnawed.
Eaton sq.....	1		19			20	
Edison st.....			42			42	
Elm st.....	12					12	
Elm lawn.....			6			6	
Erie st.....	2					2	
Everett st.....	16			2		16	2 gnawed.
Everett ave.....		17		3		17	8 gnawed.
Evans st.....	8					8	
Frederika st.....		14				14	
Gibson st.....	22				1	22	
Glen st.....	2					2	
Glendale st.....	7					7	
Grampian way.....	4					4	
Grant st.....			8			8	
Green Hill st.....	19					19	
Granite ave.....	16					16	
Hancock st.....	18					18	
Harley st.....			27	10		27	10 gnawed.
Harvard st.....	20		6	2		26	2 gnawed.
High st.....	24			5		24	5 gnawed.
Highland st.....	2					2	
Jerome st.....	5					5	
Lawrence ave.....	74	35	6		2	115	
Magnolia st.....	48				1	48	

Carried forward .. 1636 264 637 106 26 2537

## Ward 24.—Continued.

	Large.	Medium.	Small.	Damaged.	Dead.	Total.	Remarks.
<i>Brought forward..</i>	1686	264	637	106	26	2537	
Linden st.....	1					1	
Marsh st.....	6					6	
Mather st.....	15					15	
Mayfield st.....		38		10		38	10 gnawed.
Medway st.....	1		4			5	
Melville ave.....	12					12	
Merrill st.....	8					8	
Meeting-House Hill..	32					32	
Midland st.....		11	4	9		15	9 gnawed.
Mill st.....	8					8	
Milton ave.....			15			15	
Milton st.....			20			20	
Minot st.....	18			3		18	3 gnawed.
Morton st.....	123			5	2	123	5 gnawed.
Mt. Bowdoin st.....		20				20	
Mt. Vernon st.....	70			25	3	70	25 gnawed.
Narragansett st.....	4					4	
Neponset ave.....	95		9			104	
Neponset st.....	10			4		10	4 gnawed.
Newhall st.....			10		2	10	
Norfolk st.....	115	12			1	127	
Oakland st.....	5					5	
Ocean st.....		37		2		37	2 gnawed.
Olney st.....	3					3	
Park st.....	46					46	
Pearl st.....	50			10		50	10 gnawed.
Pleasant st.....	66	13				79	
Plymouth st.....	6			3		6	3 gnawed.
Preston st.....	22					22	
Quincy st.....	29			10		29	10 gnawed.
Richardson park.....	69					69	
Richfield st.....	1					1	
Richmond st.....	6		14			20	
Rill st.....	17				2	17	
River st.....	19				1	19	
Rockwell st.....			35	1		35	1 gnawed.
Romsey st.....		8	6			14	
Roslin st.....		24		3		24	3 gnawed.
Rosseter st.....	18					18	
Sagamore st.....		8	4	5	1	12	5 gnawed.
Savin Hill ave.....	90		6	3		96	3 gnawed.
Standish st.....			23			23	
Stanton st.....		61		3		61	3 gnawed.
Stanwood st.....	1					1	
Stoughton st.....	5					5	
Sumner st.....	85			2		85	2 gnawed.
Tileston ave.....	6					6	
Thornley st.....			10	1		10	1 gnawed.
Train st.....	2	38			2	40	2 dead.
Union st.....	3					3	
Victoria st.....	1					1	
Walk Hill st.....	29				2	29	2 dead.
Washington st.....	223			20	3	223	3 dead, 20 gnawed.
<i>Carried forward ..</i>	2956	534	797	225	45	4287	

## Ward 24.—Concluded.

	Large.	Medium.	Small.	Damaged.	Dead.	Total.	Remarks.
<i>Brought forward..</i>	2956	534	797	225	45	4287	
Water st.....	7					7	
Walnut st.....	19			8		19	8 gnawed.
Wells ave.....	68			5		68	5 gnawed.
Westville st.....			5			5	
Wheatland ave.....			18			18	
Winter st.....	9			1		9	
<b>Totals.....</b>	<b>3059</b>	<b>534</b>	<b>820</b>	<b>239</b>	<b>45</b>	<b>4418</b>	

## Ward 25.

	Large.	Medium.	Small.	Damaged.	Dead.	Total.	Remarks.
Adams st. ....	2					2	
Allston st. ...	3					3	
Ashford st. ....	78					78	
Athol st. ....	24					24	
Brook st. ....	27		1		1	28	
Brighton sq. ....	6					6	
Brighton ave. ....	33					33	
Cambridge st. ....	43				2	43	
Chester st. ....	23					23	
Commonwealth ave. ....	38					38	
Everett st. ....	10					10	
Faneuil st. ....	5					5	
Franklin st. ....	24					24	
Gardner st. ....	55					55	
Holton st. ....	14					14	
Lake st. ....	10	1				11	
Lincoln st. ....	13			2		13	2 gnawed.
Linden st. ....	32					32	
Market st. ....	3					3	
Marshfield st. ....			5			5	
Newton st. ....			15			15	
Nonantum st. ....	4					4	
North Beacon st. ....	78	15	40	10	1	133	10 gnawed.
North Harvard st. ....	41					41	
South st. ....		2				2	
Surry st. ....	2					2	
Oakland st. ....	9					9	
Parsons st. ....	20					20	
Raymond st. ....	5				2	5	
Shepard st. ....	6			4		6	4 gnawed.
Washington st. ....	45					45	
Western ave. ....	33				1	33	
Wicklow st. ....	24			10		24	10 gnawed.
Wexford st. ....	6					6	
Jackson sq. ....	1					1	
<b>Totals.....</b>	<b>717</b>	<b>18</b>	<b>61</b>	<b>26</b>	<b>7</b>	<b>796</b>	

## SCHEDULE OF TREES IN PARKS AND SQUARES.

WARD.		Large.	Medium.	Small.	Damaged.	Dead.	Total.
2...	Belmont sq.....	47	.....	.....	.....	.....	47
11...	Berwick park.....	.....	14	.....	.....	.....	14
18...	Blackstone sq.....	68	15	24	.....	.....	107
25...	Brighton park.....	6	.....	.....	.....	.....	6
22...	Bromley park.....	23	.....	.....	8	.....	28
21...	Cedar sq.....	.....	44	6	.....	.....	50
1...	Central sq.....	71	.....	.....	.....	.....	71
18...	Chester park and square..	96	115	4	2	.....	215
10...	Common.....	751	183	294	.....	.....	1,228
11...	Commonwealth ave.....	143	277	24	.....	.....	444
18...	Concord sq.....	.....	13	.....	.....	.....	13
24...	Eaton sq.....	1	.....	19	.....	.....	20
12...	Fort Hill sq.....	.....	.....	37	.....	.....	37
21...	Fountain sq.....	61	88	5	.....	.....	154
18...	Franklin sq.....	56	23	30	.....	.....	109
14...	Independence sq.....	56	72	41	.....	.....	169
25...	Jackson sq.....	1	.....	.....	.....	.....	1
23...	Jamaica pond.....	31	20	.....	.....	.....	51
21...	Lewis park.....	8	.....	2	.....	.....	10
14...	Lincoln sq.....	.....	.....	12	.....	.....	12
21...	Linwood park.....	5	2	.....	.....	.....	7
22...	Longwood park.....	48	.....	.....	.....	.....	48
7...	Lowell sq.....	14	1	.....	1	.....	15
19...	Madison park.....	77	20	75	.....	.....	172
2...	Maverick sq.....	3	.....	.....	.....	.....	3
24...	Meeting-House Hill.....	32	.....	.....	.....	.....	32
17...	Montgomery sq.....	5	.....	.....	.....	.....	5
24...	Mount Bowdoin.....	.....	20	.....	.....	.....	20
20...	Orchard park.....	.....	77	.....	.....	.....	77
1...	Prescott sq.....	.....	11	.....	.....	.....	11
10...	Public Garden.....	211	223	38	.....	.....	472
1...	Putnam sq.....	.....	13	.....	.....	.....	13
18...	Rutland sq.....	.....	5	9	.....	.....	14
4...	Sullivan sq.....	19	17	7	.....	.....	43
14...	Telegraph Hill.....	141	13	16	.....	.....	170
17...	Union park.....	35	3	.....	.....	.....	38
21...	Walnut park.....	4	.....	.....	.....	.....	4
21...	Washington park.....	75	148	45	.....	.....	268
5...	Winthrop sq.....	5	.....	6	1	.....	11
18...	Worcester sq.....	30	1	.....	2	.....	31
Totals.....		2,123	1,418	694	14	.....	4,235

## RECAPITULATION.

	Large.	Medium.	Small.	Damaged.	Dead.	Total.
City proper.....	2,674	1,484	577	435	24	4,785
East Boston.....	1,802	230	117	482	29	1,649
Charlestown.....	592	278	18	268	14	888
South Boston.....	2,142	454	290	74	7	2,886
Roxbury.....	2,315	762	585	396	15	3,662
Jamaica Plain.....	2,750	442	1,163	28	16	4,355
Dorchester.....	3,059	534	820	239	45	4,417
Brighton.....	717	18	61	26	7	796
Totals.....	15,551	4,202	8,631	1,948	157	23,384
Nursery.....	.....	.....	.....	.....	.....	1,258
Seedlings.....	.....	.....	.....	.....	.....	1,800
Total.....	.....	.....	.....	.....	.....	26,442

## LIST OF TREES TRIMMED AND REMOVED.

WARD 1.	Trimmed.	Removed.	WARD 4, continued.	Trimmed.	Removed.
Bremen st. ....	24	...	<i>Brought forward</i> .....	41	9
Bennington st. ....	...	4	Bartlett st. ....	2	2
Belmont st. ....	26	22	Cambridge st. ....	6	...
Eutaw st. ....	1	...	Essex st. ....	2	1
Prescott st. ....	...	1	Haverhill st. ....	8	...
Princeton st. ....	29	2	Oak st. ....	2	...
Meridian st. ....	3	7	Parker st. ....	1	2
Saratoga st. ....	21	2	Perkins st. ....	2	1
Trenton st. ....	26	2	Seavern st. ....	...	1
White st. ....	15	...			
Totals .....	145	40	Totals .....	64	16
WARD 2.			WARD 5.		
Border st. ....	12	4	Union st. ....	13	...
Everett st. ....	12	1	Chestnut st. ....	10	1
Havre st. ....	15	2	Bow st. ....	4	...
Lamson st. ....	14	1	Cordis st. ....	15	1
London st. ....	13	3	Devens st. ....	2	...
Liverpool st. ....	12	4	Green st. ....	11	2
Maverick st. ....	15	2	Lincoln st. ....	1	2
Marginal st. ....	12	4	Main st. ....	22	6
Paris st. ....	4	4	Park st. ....	2	...
Cottage st. ....	7	...	Salem st. ....	1	1
Summer st. ....	61	9	School st. ....	3	3
Seaver st. ....	...	1	Union st. ....	10	...
Webster st. ....	25	8	Warren st. ....	10	3
Webster pl. ....	...	2	Washington st. ....	17	4
Totals .....	202	45	Totals .....	121	23
WARD 3.			WARD 7.		
Chelsea st. ....	22	3	Cooper st. ....	...	2
Concord st. ....	4	2			
Elm st. ....	13	...	WARD 8.		
High st. ....	12	6	McLean st. ....	10	...
Jackson st. ....	3	2	Allen st. ....	10	...
Monument st. ....	2	...	Chambers st. ....	...	2
Monument sq. ....	8	2			
Pearl st. ....	28	...	Totals .....	20	2
Lexington st. ....	14	12			
Medford st. ....	...	1	WARD 9.		
Totals .....	106	28	Beacon st. ....	15	...
WARD 4.			Charles st. ....	10	5
Auburn st. ....	25	3	Chestnut st. ....	30	1
Bunker Hill st. ....	16	6	Revere st. ....	1	...
			Mt. Vernon st. ....	12	4
Carried forward .....	41	9	Totals .....	68	10



WARD 10.	Trimmed.	Removed.	WARD 14, continued.	Trimmed.	Removed.
Boylston st. ....	15	2	<i>Brought forward</i> .....	124	18
Charles st. ....	17	6	Fifth st. ....	13	...
Harrison ave. ....	2	2	East Broadway .....	73	31
Totals .....	32	10	Linden st. ....	21	1
WARD 11.			Old Harbor st. ....	10	2
Commonwealth ave. ....	4	1	Thomas st. ....	76	...
Columbus ave. ....	8	8	Totals .....	317	52
Dartmouth st. ....	3	...	WARD 15.		
Newbury st. ....	8	1	West Broadway .....	61	31
Park sq. ....	2	2	Boston st. ....	5	3
Warren ave. ....	4	5	Baxter st. ....	12	1
Greenwich pk. ....	1	1	Gates st. ....	2	...
Marlboro st. ....	12	2	West Seventh st. ....	19	1
West Newton st. ....	11	...	Dorchester ave. ....	15	4
Totals .....	42	20	West Fifth st. ....	15	...
WARD 12.			Totals .....	129	40
Harrison ave. ....	23	6	WARD 16.		
Pine st. ....	1	...	Ashland pl. ....	...	1
Tyler st. ....	8	4	Dover st. ....	9	4
Hudson st. ....	12	4	Dwight st. ....	11	...
Totals .....	44	14	Washington st. ....	5	1
WARD 13.			Tremont st. ....	1	...
A st. ....	13	1	Totals ...	26	6
B st. ....	24	8	WARD 17.		
D st. ....	21	10	Brookline st. ....	11	2
Second st. ....	1	...	Malden st. ....	1	...
Fourth st. ....	17	...	Warren ave. ....	...	2
C st. ....	10	5	Hanson st. ....	18	4
Dorchester ave. ....	6	2	Shawmut ave. ....	20	...
Foundry st. ....	4	...	Canton st. ....	20	...
West Broadway .....	17	8	Totals .....	70	8
West Fifth st. ....	18	2	WARD 18.		
West Sixth st. ....	8	...	Chester park ....	29	1
West Seventh st. ....	13	...	Chester sq. ....	...	1
Totals .....	152	36	Rutland st. ....	5	1
WARD 14.			Springfield st. ....	2	2
Dorchester st. ....	18	4	Worcester st. ....	2	...
E st. ....	21	4	Pembroke st. ....	1	...
F st. ....	5	1	West Concord st. ....	15	...
G st. ....	18	3	Northampton st. ....	15	...
K st. ....	37	1	Totals ...	69	5
M st. ....	24	1			
N st. ....	1	...			
O st. ....	...	4			
Carried forward .....	124	18			

WARD 19.	Trimmed.	Removed.	WARD 23.	Trimmed.	Removed.
Elmwood st. ....	18	...	Amory st. ....	4	1
Camden st. ....	15	...	Boylston st. ....	2	1
Vernon st. ....	31	1	Corey st. ....	12	...
			Garden st. ....	25	...
Totals .....	64	1	Grove st. ....	5	1
			Lamartine st. ....	27	3
WARD 20.			Prince st. ....	16	...
Adams st. ....	26	1	Poplar st. ....	12	...
Blue Hill ave. ....	23	3	South st. ....	52	...
Brook ave. ....	12	...	Spring st. ....	33	...
Eustis st. ....	21	...	Spring Park ave. ....	...	1
Dudley st. ....	46	14	Walk Hill st. ....	1	1
Forest st. ....	21	1	Wyman st. ....	22	2
Magnolia st. ....	34	3	Harris ave. ....	6	...
Mt. Pleasant ave. ....	35	1	St. John st. ....	...	1
Orchard st. ....	5	...	Canterbury st. ....	20	...
Rockville park .....	7	...	Totals .....	237	11
Totals .....	230	23			
WARD 21.			WARD 24.		
Alpine st. ....	3	1	Ashmont st. ....	42	1
Bower st. ....	2	6	Adams st. ....	21	2
Catawba st. ....	31	1	Bellevue st. ....	1	...
Cedar st. ....	46	5	Lawrence ave. ....	103	4
Centre st. ....	17	8	Minot st. ....	11	...
Dale st. ....	10	1	Morton st. ....	35	1
Edgewood st. ....	5	1	Mattapan sq. ....	2	...
Elm Hill ave. ....	30	8	Ocean st. ....	10	1
Kenilworth ave. ....	16	...	Pond st. ....	...	2
Lambert ave. ....	1	...	Quincy st. ....	11	1
Laurel ave. ....	3	...	Commercial st. ....	9	1
Lewis Park st. ....	1	...	Mt. Vernon st. ....	1	15
Marcella st. ....	4	...	Savin Hill ave. ....	27	1
Norfolk st. ....	3	1	Cottage st. ....	10	...
Oakland st. ....	5	1			
Ottawa st. ....	21	2	Totals .....	283	29
Roxbury st. ....	31	...			
Sherman st. ....	8	...	WARD 25.		
Thornton st. ....	2	1			
Waumbeck st. ....	1	...			
Weldon st. ....	3	2			
Winthrop st. ....	1	...	Ashford st. ....	76	...
Highland st. ....	27	5	Brighton ave. ....	16	...
Guild row .....	...	5	Gardner st. ....	22	...
Totals .....	271	43	Franklin st. ....	15	1
			Chestnut Hill ave. ....	3	...
WARD 22.			Market st. ....	...	1
Bellevue ave. ....	45	2	Parsons st. ....	20	...
Commonwealth ave. ....	6	...	Western ave. ....	12	...
Longwood ave. ....	16	1	Shepard st. ....	...	1
Brookline ave. ....	15	...	Wicklow st. ....	10	2
			Linden park .....	20	...
Totals .....	82	3	Totals .....	194	5

## RECAPITULATION.

	Trimmed.	Removed.
City proper .....	435	78
East Boston .....	347	85
Charlestown .....	291	67
South Boston .....	598	128
Roxbury .....	501	66
West Roxbury .....	319	14
Dorchester .....	283	29
Brighton .....	194	5
Totals .....	2,968	472

PAYMENTS FOR EXPENSES ON PUBLIC GROUNDS FOR THE  
THIRTEEN MONTHS ENDING JANUARY 31, 1892.

*General Appropriation.*

Salary Superintendent . . . . .	\$3,000 00	
Board, shoeing, etc., of horses . . . . .	1,088 15	
Tools and repairs . . . . .	980 78	
Lawn-mowers and repairs . . . . .	263 39	
Two horses purchased . . . . .	460 00	
Harness and vehicles, and repairs, . . . . .	556 02	
Flower-pots . . . . .	550 20	
Water-rates . . . . .	472 10	
Hose . . . . .	741 50	
Hardware and small supplies . . . . .	671 11	
Teaming, plank-walks . . . . .	600 00	
Telegrams, express charges, etc. . . . .	59 95	
Painting signs . . . . .	20 00	
Police badges . . . . .	17 34	
Rubber boots . . . . .	69 00	
Watering Charles street . . . . .	380 00	
Car-fares for employees . . . . .	250 00	
Picture frames . . . . .	22 60	
Advertising . . . . .	47 01	
Fence-poles . . . . .	106 15	
		10,355 30

*Street Trees.*

Labor . . . . .	\$1,672 24
Trees . . . . .	990 00

*Amounts carried forward,*

\$2,662 24	\$10,355 30
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<i>Amounts brought forward,</i>	\$2,662 24	\$10,355 30
Teaming . . . . .	107 92	
Iron band . . . . .	5 00	
Claim for damages . . . . .	50 00	
	<hr/>	2,825 16

*Office.*

Clerk-hire . . . . .	\$1,500 00	
Printing, stationery, etc. . . . .	168 93	
Telephone service . . . . .	120 90	
Fuel . . . . .	37 50	
Repairs of stove . . . . .	16 63	
Cleaning . . . . .	38 50	
Plumbing repairs . . . . .	7 96	
Gas . . . . .	3 12	
Ice . . . . .	14 25	
	<hr/>	1,907 79

*Greenhouses and Nurseries.*

Labor . . . . .	\$9,215 93	
Fuel . . . . .	633 15	
Gas . . . . .	47 19	
Telephone service . . . . .	254 30	
Cleaning . . . . .	30 90	
Charcoal . . . . .	22 00	
Moss . . . . .	20 75	
Lumber . . . . .	1,229 99	
Lime, sand, cement, and bricks . . . . .	331 04	
Mason . . . . .	122 00	
Carpentry . . . . .	162 00	
Electrical repairs, etc. . . . .	53 71	
Metallic circuit . . . . .	20 00	
Repairing hot-water apparatus . . . . .	493 34	
Manure . . . . .	316 84	
Teaming . . . . .	291 33	
Loam . . . . .	114 13	
Ice . . . . .	24 58	
Netting . . . . .	14 00	
Autographic-register rent . . . . .	18 96	
Painting and glazing . . . . .	248 05	
Iron-work . . . . .	102 81	
Plumbing . . . . .	169 75	
Tin . . . . .	1 68	
Tan. . . . .	7 11	

<i>Amounts carried forward,</i>	\$13,945 54	\$15,088 25
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<i>Amounts brought forward,</i>	\$13,945 54	\$15,088 25
Small supplies . . . .	3 05	
Flower-seed . . . .	16 13	
Sash and rope . . . .	442 86	
	<hr/>	14,407 58

*Common.*

Labor . . . . .	\$12,820 52	
Fence-poles . . . . .	87 70	
Lumber . . . . .	146 84	
Mason . . . . .	22 00	
Teaming . . . . .	2,255 32	
Loam . . . . .	821 80	
Sod and seed . . . . .	2,728 46	
Manure and fertilizers . . . . .	488 47	
Red gravel . . . . .	1,783 73	
Blue gravel and sand . . . . .	211 62	
Painting stand . . . . .	78 00	
Plumbing repairs . . . . .	2 10	
Repairing iron fence . . . . .	62 28	
Fence wire . . . . .	22 97	
Iron grate . . . . .	15 40	
New settees . . . . .	2,535 00	
Freight and carting of settees . . . . .	87 79	
Labelling trees . . . . .	79 91	
	<hr/>	\$24,249 91

*Public Garden.*

Labor . . . . .	\$14,419 95
Plant-cloth . . . . .	50 05
Lumber . . . . .	9 95
Negatives . . . . .	55 50
Freight charges and duties . . . . .	139 61
Teaming . . . . .	1,854 25
Red gravel . . . . .	1,198 94
Blue gravel . . . . .	75 25
Loam . . . . .	70 07
Manure . . . . .	523 21
Sod . . . . .	1,389 51
Plant . . . . .	496 22
Bulbs and seeds . . . . .	1,503 59
Trees and shrubs . . . . .	151 50
Plumbing repairs . . . . .	12 75
Repairing iron fence . . . . .	29 80

*Amounts carried forward,*      \$21,980 15      \$53,745 74

<i>Amounts brought forward,</i>	\$21,980 15	\$53,745 74
Painting bridge . . . .	210 90	
Large vases . . . .	368 50	
Mason-work . . . .	8 00	
Fence-wire . . . .	2 84	
Labelling trees . . . .	39 95	
	<hr/>	22,610 34

*Commonwealth Avenue.*

Labor . . . .	\$865 00	
Red gravel . . . .	455 00	
Teaming . . . .	380 91	
Manure and fertilizers . .	210 40	
Sod and grass-seed . . .	208 05	
Loam . . . .	22 50	
Lumber . . . .	15 00	
	<hr/>	2,156 86

*Chester Park and Square.*

Labor . . . .	\$633 50	
Red gravel . . . .	112 35	
Fence-wire . . . .	61 55	
Sod and grass-seed . . .	58 50	
Fertilizers and manure . .	55 05	
Plumbing . . . .	34 96	
Painting . . . .	15 10	
Teaming . . . .	8 00	
Repairing fence . . . .	6 40	
	<hr/>	985 41

*Blackstone Square.*

Labor . . . .	\$805 50	
Painting . . . .	19 05	
Teaming . . . .	9 00	
Grass-seed . . . .	7 50	
Manure . . . .	3 00	
	<hr/>	844 05

*Franklin Square.*

Labor . . . .	\$806 63	
Grass-seed . . . .	7 50	
Teaming . . . .	7 00	
Manure . . . .	3 00	
	<hr/>	824 13

*Amount carried forward,***\$81,166 53**

*Amount brought forward,* \$81,166 53

*Worcester Square.*

Labor . . . . .	\$152	50	
Red gravel . . . . .	38	25	
Manure . . . . .	3	98	
Grass-seed . . . . .	1	50	
			196 23

*Concord Square.*

Labor . . . . .	\$152	50	
Fence-wire . . . . .	9	96	
Repairing fountain . . . . .	7	50	
Manure and fertilizers . . . . .	6	49	
Teaming . . . . .	1	00	
			177 45

*Rutland Square.*

Labor . . . . .	\$152	50	
Manure and fertilizers . . . . .	9	19	
Fence and wire . . . . .	5	11	
Teaming . . . . .	2	00	
			168 80

*Copley Square.*

Labor . . . . .	\$287	50	
Teaming . . . . .	14	00	
			301 50

*Union Park.*

Labor . . . . .	\$152	50	
Red gravel . . . . .	79	10	
Painting . . . . .	15	20	
Grass-seed . . . . .	1	50	
			248 30

*Washington Square.*

Labor . . . . .	\$57	00	
Teaming . . . . .	12	00	
			69 00

*City Hall.*

Labor . . . . .			84 00
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*Amount carried forward,* \$82,411 81

*Amount brought forward,* \$82,411 81

*Park Square.*

Labor . . . . .	\$110 00	
Repairing vases . . . . .	2 00	
Plumbing ' . . . . .	1 40	
	<hr/>	113 40

*Lowell Square.*

Labor . . . . .		114 00
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*Berwick Park.*

Labor . . . . .	\$125 00	
Teaming . . . . .	3 00	
Fertilizers . . . . .	2 70	
	<hr/>	130 70

*Greenwich Park.*

Labor . . . . .		125 00
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*Martin School.*

Manure . . . . .		3 00
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*Dudley School.*

Manure . . . . .		4 00
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## SOUTH BOSTON.

*Independence Square.*

Labor . . . . .	\$797 12	
Fertilizer . . . . .	54 00	
Repairing fence . . . . .	74 04	
Painting . . . . .	38 10	
Mason . . . . .	16 00	
Plumbing . . . . .	13 90	
Red gravel . . . . .	97 47	
Sod and grass-seed . . . . .	48 81	
Loam . . . . .	16 75	
Teaming . . . . .	45 00	
	<hr/>	1,201 19

*Telegraph Hill.*

Labor . . . . .	\$182 00	
Fertilizer . . . . .	26 60	

*Amounts carried forward,* \$208 60 \$84,103 10



<i>Amounts brought forward,</i>					\$208 60	\$84,103 10
Pipe, etc.	.	.	.	.	25 28	
Grass-seed	.	.	.	.	3 00	
Teaming	.	.	.	.	3 00	
					<hr/>	239 88

*Lincoln Square.*

Labor	.	.	.	.	\$261 55	
Painting fence	.	.	.	.	50 00	
Repairing	.	.	.	.	41 17	
Fertilizer and manure	.	.	.	.	10 60	
Mason	.	.	.	.	8 00	
Teaming	.	.	.	.	3 00	
					<hr/>	374 32

*Commonwealth Park.*

Teaming	.	.	.	.	\$61 00	
Grass-seed	.	.	.	.	15 00	
Lumber	.	.	.	.	6 91	
					<hr/>	82 91

## EAST BOSTON.

*Central Square.*

Labor	.	.	.	.	\$72 00	
Grass-seed	.	.	.	.	18 00	
					<hr/>	90 00

*Maverick Square.*

Labor	.	.	.	.	\$45 00	
Grass-seed	.	.	.	.	9 00	
					<hr/>	54 00

*Belmont Square.*

Labor	.	.	.	.	\$63 00	
Sod and seed	.	.	.	.	47 76	
Loam	.	.	.	.	29 00	
Manure	.	.	.	.	2 00	
					<hr/>	141 76

*Putnam Square.*

Labor	.	.	.	.	.	45 00
					<hr/>	

*Amount carried forward,***\$85,130 97**

*Amount brought forward,* \$85,130 97

*Prescott Square.*

Labor . . . . . 27 00

*Station 7.*

Sod . . . . . 9 00

CHARLESTOWN.

*City Square.*

Labor . . . . .	\$232 00	
Manure and fertilizer . . . . .	30 50	
Grass-seed . . . . .	3 00	
Teaming . . . . .	2 00	
		267 50

*Winthrop Square.*

Labor . . . . .	\$334 00	
Fertilizers . . . . .	11 40	
Grass-seed . . . . .	3 00	
		348 40

*Sullivan Square.*

Labor . . . . .	\$314 00	
Fertilizer and manure . . . . .	41 87	
Grass-seed . . . . .	3 00	
Red gravel . . . . .	66 25	
Painting fence . . . . .	70 60	
Teaming . . . . .	12 00	
Plumbing . . . . .	15 50	
		523 22

DORCHESTER DISTRICT.

*Meeting-House Hill.*

Labor . . . . .	\$121 00	
Grass-seed . . . . .	3 00	
		124 00

*Mt. Bowdoin.*

Labor . . . . .	\$116 00	
Grass-seed . . . . .	3 00	
		119 00

*Amount carried forward,*

\$86,549 09

*Amount brought forward,*

\$86,549 09

*Eaton Square.*

Labor . . . . .	\$91 00
Painting . . . . .	63 65
Mason . . . . .	6 00
Grass-seed . . . . .	3 00

163 65

*Dorchester Town Field.*

Labor . . . . .	\$180 00
Teaming . . . . .	24 00

204 00

## ROXBURY DISTRICT.

*Washington Park.*

Labor . . . . .	\$712 86
Fertilizer . . . . .	82 80
Teaming . . . . .	21 00
Grass-seed . . . . .	6 00

822 66

*Madison Park.*

Labor . . . . .	\$677 62
Red gravel . . . . .	118 85
Fence-wire . . . . .	93 89
Lumber . . . . .	6 64
Manure . . . . .	6 00
Grass-seed . . . . .	3 00

906 00

*Orchard Park.*

Labor . . . . .	\$405 00
Fertilizer and manure . . . . .	18 20
Plumbing . . . . .	14 00
Red gravel . . . . .	108 50
Repairing iron fence . . . . .	8 05
Loam . . . . .	3 30
Grass-seed . . . . .	3 00

560 05

*Bromley Park.*

Labor . . . . .	\$205 00
Loam . . . . .	230 66

*Amounts carried forward,*

\$435 66 \$89,205 45

<i>Amounts brought forward,</i>	\$435 66	\$89,205 45
Manure . . . . .	92 00	
Plant-cloth . . . . .	41 90	
Grass-seed . . . . .	6 00	
Team . . . . .	214 75	
Cedar posts . . . . .	18 00	
Fence-wire . . . . .	24 13	
	<hr/>	832 44

*Fountain Park.*

Labor . . . . .	\$82 50	
Fertilizer . . . . .	15 20	
Painting fence . . . . .	40 00	
Grass-seed . . . . .	3 00	
Teaming . . . . .	2 00	
Fence-wire . . . . .	4 57	
	<hr/>	147 27

*Cedar Square.*

Labor . . . . .	\$87 50	
Repairing iron fence . . . . .	65 10	
	<hr/>	152 60

*Longwood Park.*

Labor . . . . .	76 00
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*Lewis Park.*

Labor . . . . .	72 00
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*Public Ground, Centre Street.*

Labor . . . . .	125 00
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*Walnut Park.*

Labor . . . . .	68 00
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*Highland Park.*

Labor . . . . .	213 00
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*Linwood Park.*

Loam . . . . .	\$87 50	
Lumber . . . . .	7 29	
	<hr/>	94 79

*Amount carried forward,***\$90,986 55**

*Amount brought forward,* \$90,986 55

*Richardson Square.*

Labor . . . . .	\$175 00	
Manure . . . . .	110 14	
	285 14	285 14

*Warren Street, Public Ground.*

Labor . . . . .		125 00
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WEST ROXBURY DISTRICT.

*Shore of Jamaica Plain Pond.*

Labor . . . . .	\$179 75	
Gravel . . . . .	55 50	
Lumber . . . . .	56 27	
Loam . . . . .	10 00	
	301 52	301 52

*Soldiers' Monument Lot.*

Labor . . . . .		88 50
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*Public Grounds, Adams Street.*

Gravel and loam . . . . .		159 00
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BRIGHTON DISTRICT.

*Brighton Square.*

Labor . . . . .	\$48 00	
Teaming . . . . .	2 00	
Grass-seed . . . . .	1 50	
	51 50	51 50

*Jackson Square.*

Labor . . . . .	\$48 00	
Mason . . . . .	8 00	
Grass-seed . . . . .	1 50	
	57 50	57 50

Rent of playground . . . . .		400 00
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Total . . . . .	\$92,454 71	
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## SPECIAL APPROPRIATIONS.

*Public Grounds, East Boston.*

Laborers . . . . .	\$4,829 28
Granite curbings . . . . .	7,521 40
Loam . . . . .	2,563 90
Teaming . . . . .	1,171 50
New settees . . . . .	1,000 00
Freight charges on settees . . . . .	21 22
Asphalt tile walk . . . . .	918 75
Manure . . . . .	440 46
Labor, carpentering, etc. . . . .	278 50
Bulbs . . . . .	274 50
New bricks . . . . .	253 00
Seven new hydrants . . . . .	225 00
Large vases . . . . .	194 00
Fence-wire . . . . .	169 28
Fence-poles . . . . .	128 95
Gravel . . . . .	131 45
Sod . . . . .	160 80
Grass-seed . . . . .	88 70
Repairs on iron fences . . . . .	76 50
Mason-work . . . . .	72 00
Cedar posts . . . . .	100 00
Lumber . . . . .	52 09
Car and ferry fares . . . . .	51 51
Tools and repairs . . . . .	38 63
Advertising . . . . .	30 42
Typewriting . . . . .	8 25

Amount expended to date . . . . .	\$20,800 09
Balance on hand . . . . .	1,199 91

Amount of appropriation . . . . . 22,000 00

*Street Trees.*

Laborers . . . . .	\$6,858 81
Teaming . . . . .	832 25
Trees . . . . .	191 00
Tools and repairs . . . . .	145 76
Freight on trees . . . . .	36 76

Amounts carried forward, . . . . . \$8,064 58      \$22,000 00

<i>Amounts brought forward,</i>	\$8,064 58	\$22,000 00
Iron-work . . . . .	24 62	
Mason-work . . . . .	22 00	
	<hr/>	
Amount expended to date .	\$8,111 20	
Balance on hand . . . . .	1,888 80	
	<hr/>	
Amount of appropriation .		10,000 00

*Rogers Park.*

Laborers . . . . .	\$1,617 62	
New settees . . . . .	500 00	
Freight on new settees . .	11 10	
Teaming . . . . .	183 00	
Pipe, etc. . . . .	183 13	
Manure . . . . .	127 30	
Loam . . . . .	127 50	
Extra labor, carpentering, etc. .	95 00	
Clay . . . . .	52 50	
Mason-work . . . . .	50 00	
Cedar poles . . . . .	48 60	
Hardware . . . . .	4 25	
	<hr/>	3,000 00

*Blackstone and Franklin Squares.*

Laborers . . . . .	\$2,406 47	
Part payment on asphalt tile walk (total amount, \$3,900) .	2,600 00	
Concrete walk . . . . .	1,647 33	
Sod . . . . .	669 42	
Loam . . . . .	658 10	
Teaming . . . . .	198 00	
Mason-work . . . . .	34 00	
Manure . . . . .	18 15	
Lumber and brick . . . . .	4 30	
Typewriting . . . . .	1 75	
	<hr/>	8,237 52

*Dorchester Square, Meeting-House Hill.*

Labor . . . . .	\$309 22	
Crushed stone . . . . .	87 50	
Loam . . . . .	55 21	
	<hr/>	
<i>Amounts carried forward,</i>	\$451 93	\$43,237 52

<i>Amounts brought forward,</i>	\$451 93	\$43,237 52
Teaming . . . . .	32 00	
Mason-work . . . . .	16 00	
	<hr/>	499 93

*Public Garden Pond, Curbing.*

Laborers . . . . .	\$789 00	
Mason-work . . . . .	411 00	
Crushed stone . . . . .	300 00	
	<hr/>	1,500 00

*Common, Asphalt Tiles or Concrete.*

Asphalt tile walk . . . . .	\$3,676 40	
Concrete walks . . . . .	2,691 00	
Kidney-stone . . . . .	215 69	
Teaming . . . . .	162 00	
Mason-work . . . . .	150 00	
Paving . . . . .	115 00	
Concrete repairs . . . . .	65 00	
Laborers . . . . .	21 26	
Advertising . . . . .	9 25	
Typewriting . . . . .	1 00	
Sand . . . . .	43 40	
	<hr/>	7,150 00

*Thomas Park.*

Laborers . . . . .	\$893 99	
New settees . . . . .	500 00	
Freight on settees . . . . .	11 10	
Manure . . . . .	498 91	
Mason . . . . .	84 00	
Teaming . . . . .	12 00	
	<hr/>	2,000 00

*Commonwealth Park.*

Laborers . . . . .	\$1,380 34	
Teaming . . . . .	322 50	
Red gravel . . . . .	264 16	
Carpentering . . . . .	33 00	
	<hr/>	2,000 00

*Amount carried forward,***\$56,387 45**



*Amount brought forward,* \$56,387 45

*Common, Draining.*

Laborers . . . . .	\$343	99
Mason-work . . . . .	458	29
Cesspools . . . . .	125	00
Cement . . . . .	72	72
		1,000 00

*Square, Albany Street, Ward 20.*

Concreted . . . . .		250 00
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*Independence Square.*

Repairing and resurfacing concrete . . .		1,200 00
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*City Square, Charlestown.*

New flag-staff . . . . .		450 00
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*Washington Park, Settees.*

New settees . . . . .		300 00
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*Orchard Park, Settees.*

New settees . . . . .		165 00
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*Montgomery Square, Asphalt Walks.*

Asphalt tile pavement . . . . .		814 00
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*Square, Union Park and Waltham Streets.*

Purchased . . . . .		8,500 00
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*Tudor Bequest.*

Pine trees . . . . .		50 00
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Total amount expended under special appropriation . . . . .		<div style="border-top: 1px solid black; border-bottom: 3px double black;">\$69,116 45</div>
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[DOCUMENT 30 — 1892.]



ANNUAL REPORT  
OF THE  
DEPARTMENT OF PUBLIC INSTITUTIONS,  
FOR THE YEAR 1891.

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OFFICE OF COMMISSIONERS OF PUBLIC INSTITUTIONS,  
No. 14 BEACON STREET,

BOSTON, Feb. 1, 1892.

HON. NATHAN MATTHEWS, JR.,  
*Mayor of the City of Boston:*

SIR: In accordance with Chap. 3, Sec. 22, Revised Ordinances, the Commissioners of Public Institutions submit their annual report for the calendar year ending Dec. 31, 1891, it being the thirty-fifth of the department and the third since the formation of the commission. In addition to the above are given the receipts and expenditures of this department for thirteen months ending Jan. 31, 1892, the close of the financial year, in compliance with an order of the City Council approved Dec. 5, 1891.

The following pages, 2 to 24 inclusive, contain the receipts, expenditures, and comparisons for the calendar year; the receipts and expenditures for thirteen months will be found on pages 25 and 27:

## HOUSE OF INDUSTRY.

Subsistence . . . . .	\$52,234 16
Clothing and bedding . . . . .	13,484 34
Fuel and light . . . . .	11,957 81
Salaries . . . . .	37,138 50
Furniture and utensils . . . . .	2,478 08
Medical department . . . . .	921 72
Books, printing, and stationery . . . . .	366 48
Agricultural . . . . .	2,670 26
Repairs and alterations . . . . .	5,682 21
Printing department . . . . .	458 03
Labor and contract . . . . .	598 67
Stone department . . . . .	18,018 94
Religious services . . . . .	1,442 55
Water . . . . .	2,250 00
Soap and stock . . . . .	471 50
Band expenses . . . . .	548 50
Entertainment and holidays . . . . .	108 00
Transportation and carriage-hire . . . . .	64 86
School supplies . . . . .	106 13
Telephone rental . . . . .	325 90
Postage and rent of P. O. box . . . . .	285 00
City government dinner . . . . .	150 00
Toilet paper . . . . .	14 50
Messenger . . . . .	6 50
All other items . . . . .	1 46
 Total . . . . .	 <u>\$151,784 10</u>

## LUNATIC HOSPITAL.

Subsistence . . . . .	\$30,436 49
Clothing and bedding . . . . .	4,123 85
Fuel and light . . . . .	6,366 78
Salaries . . . . .	27,805 68
Furniture and utensils . . . . .	2,294 32
Medical department . . . . .	1,453 39
Books, printing, and stationery . . . . .	274 41
Agricultural department . . . . .	4,210 18
Repairs and alterations . . . . .	4,455 48
Water . . . . .	1,762 20
Soap and stock . . . . .	876 15
Telephone rental . . . . .	240 25

*Carried forward,*\$84,299 18

<i>Brought forward,</i>	\$84,299 18
Entertainment and holidays . . . . .	182 32
Transportation and carriage-hire . . . . .	96 24
Ice . . . . .	515 53
Postage and rent of P. O. box . . . . .	107 40
Attending superintendent's meeting . . . . .	65 77
Burial . . . . .	15 00
Toilet paper . . . . .	14 00
Expressage and freight . . . . .	8 02
All other items . . . . .	6 30
<b>Total . . . . .</b>	<b>\$85,309 76</b>

## MARCELLA-STREET HOME.

Subsistence . . . . .	\$13,165 55
Clothing and bedding . . . . .	4,825 55
Fuel and lights . . . . .	5,021 45
Pay rolls . . . . .	13,218 69
Furniture and utensils . . . . .	1,280 28
Medical department . . . . .	724 99
Books, printing, and stationery . . . . .	176 36
Agricultural department . . . . .	504 17
Repairs and alterations . . . . .	1,721 74
School supplies . . . . .	59 67
Water . . . . .	1,160 70
Soap and stock . . . . .	292 67
Telephone rental . . . . .	120 00
Postage . . . . .	47 00
Burial . . . . .	103 00
Entertainment and holidays . . . . .	258 26
Ice . . . . .	79 10
Toilet paper . . . . .	46 50
Freight and expressage . . . . .	24 06
Religious services . . . . .	24 00
Gratuities . . . . .	17 60
All other items . . . . .	8 10
<b>Total . . . . .</b>	<b>\$42,879 44</b>

## HOME FOR PAUPERS, RAINSFORD'S AND LONG ISLANDS.

Subsistence . . . . .	\$29,216 69
Clothing and bedding . . . . .	7,077 26
Fuel and light . . . . .	6,924 25
Salaries . . . . .	9,418 50
Furniture and utensils . . . . .	1,669 13
Medical department . . . . .	2,794 29
Books, printing, and stationery . . . . .	367 53
Agricultural department . . . . .	2,606 31
Repairs and alterations . . . . .	3,594 07
Water . . . . .	4,830 73
Soap and stock . . . . .	590 41
Telephone rental . . . . .	302 87
Religious services . . . . .	303 32
Postage . . . . .	130 00
Entertainment and holidays . . . . .	16 50
Freight and expressage . . . . .	14 45
Toilet paper . . . . .	14 00
Transportation and carriage-hire . . . . .	8 00
All other items . . . . .	1 25
<b>Total . . . . .</b>	<b><u>\$69,879 56</u></b>

## ALMSHOUSE, CHARLESTOWN.

Subsistence . . . . .	\$6,286 09
Clothing and bedding . . . . .	870 76
Fuel and light . . . . .	1,547 59
Salaries . . . . .	2,707 81
Furniture and utensils . . . . .	398 33
Medical department . . . . .	212 06
Books, printing, and stationery . . . . .	33 91
Agricultural department . . . . .	390 56
Repairs and alterations . . . . .	501 41
Water . . . . .	269 93
Soap and stock . . . . .	147 77
Telephone rental . . . . .	144 00
Expressage . . . . .	130 69
Burial . . . . .	90 10
Ice . . . . .	51 50
Transportation and carriage-hire . . . . .	12 00
Entertainment and holidays . . . . .	10 00
Postage . . . . .	10 00
<b>Total . . . . .</b>	<b><u>\$13,814 51</u></b>

## PAUPER EXPENSES.

Support of persons outside the Public Institutions of the city of Boston . . . . .	\$138,036 52
Transportation and travel . . . . .	3,278 91
Salaries . . . . .	8,898 87
Keeping horses . . . . .	1,024 43
Repairs to carriage and harness . . . . .	67 05
Medical attendance . . . . .	2,717 00
Books, printing, and stationery . . . . .	356 85
Copying pauper histories . . . . .	197 08
Postage . . . . .	104 62
Telephone rental . . . . .	96 00
Messenger to Tewksbury . . . . .	53 65
All other items . . . . .	6 95
<b>Total . . . . .</b>	<b><u>\$154,837 93</u></b>

## STEAMER "J. PUTNAM BRADLEE."

Manning . . . . .	\$8,132 00
Repairs . . . . .	2,841 99
Fuel . . . . .	2,481 53
Rent of dock . . . . .	2,000 00
Water . . . . .	180 00
Telephone . . . . .	126 00
Waste and oil . . . . .	101 15
Chandlery . . . . .	25 63
Books, printing, and stationery . . . . .	7 60
For damages . . . . .	51 92
<b>Total . . . . .</b>	<b><u>\$15,947 82</u></b>

## OFFICE EXPENSES.

Salaries . . . . .	\$18,887 78
Printing, books, and stationery . . . . .	301 38
Postage and rent of P. O. box . . . . .	132 50
Telephone rental . . . . .	124 50
Carriage-hire . . . . .	33 50
Newspapers . . . . .	21 65
All other items . . . . .	10 37
<b>Total . . . . .</b>	<b><u>\$19,511 68</u></b>

## COUNTY OF SUFFOLK, HOUSE OF CORRECTION.

Subsistence . . . . .	\$36,246 30
Clothing and bedding . . . . .	4,278 69
Fuel and light . . . . .	9,517 38
Salaries . . . . .	25,713 52
Furniture and utensils . . . . .	1,076 62
Medical department . . . . .	642 99
Books, printing, and stationery . . . . .	270 36
Agricultural department . . . . .	724 40
Repairs and alterations . . . . .	2,720 91
Labor and contract . . . . .	2,575 98
Religious services . . . . .	1,134 10
Water . . . . .	2,307 60
Soap and stock . . . . .	657 86
Gratuities . . . . .	556 20
Ice . . . . .	1,058 99
Entertainment and holidays . . . . .	213 50
City government dinner . . . . .	125 00
Telephone rental . . . . .	108 00
Postage and rent of P. O. box . . . . .	101 00
Toilet paper . . . . .	91 00
Transportation and carriage-hire . . . . .	30 00
School supplies . . . . .	27 02
All other items . . . . .	12 89
<b>Total . . . . .</b>	<b><u>\$90,190 31</u></b>

## RECAPITULATION OF EXPENDITURES.

House of Industry . . . . .	\$151,784 10
Lunatic Hospital . . . . .	85,309 76
Marcella-street Home . . . . .	42,879 44
Home for Paupers, Rainsford's and Long Islands . . . . .	69,879 56
Almshouse, Charlestown . . . . .	13,814 51
Pauper expenses . . . . .	154,837 93
Steamer "J. Putnam Bradlee" . . . . .	15,947 82
Office expenses . . . . .	19,511 68
<b>Public Institutions . . . . .</b>	<b><u>\$553,964 80</u></b>
<b>County of Suffolk, House of Correction . . . . .</b>	<b><u>90,190 31</u></b>
<b>Total . . . . .</b>	<b><u>\$644,155 11</u></b>

ITEMS OF EXPENDITURE FOR THE SEVERAL INSTITUTIONS,  
CLASSIFIED.

Subsistence . . . . .	\$167,585 28
Clothing and bedding . . . . .	34,660 45
Fuel and light . . . . .	41,335 26
Salaries . . . . .	116,002 70
Furniture and utensils . . . . .	9,196 76
Medical department . . . . .	6,749 44
Books, printing, and stationery . . . . .	1,489 05
Agricultural department . . . . .	11,105 88
Repairs and alterations . . . . .	18,675 82
Printing department (House of Reformation), Labor and contract (House of Industry and House of Correction) . . . . .	458 03 3,174 65
Stone department (House of Industry) . . . . .	18,018 94
Religious services . . . . .	2,879 97
Water . . . . .	12,581 16
Soap and stock . . . . .	3,036 36
Telephone rental . . . . .	1,241 02
All other items . . . . .	5,666 91
Total . . . . .	<u>\$453,857 68</u>

The income of the several institutions and of pauper expenses for the year 1891 has been as follows, viz. :

House of Industry . . . . .	\$44,071 03
Lunatic Hospital . . . . .	20,524 46
Marcella-street Home . . . . .	179 87
Home for Paupers . . . . .	2,739 06
Almshouse, Charlestown . . . . .	343 62
Pauper expenses . . . . .	7,720 27
Public Institutions . . . . .	<u>\$75,578 31</u>
County of Suffolk, House of Correction . . . . .	29,818 57
Total . . . . .	<u>\$105,396 88</u>



Comparison of income for the years 1890 and 1891, showing increase and decrease :

Institution,	1890.	1891.	Increase.	Decrease.
House of Industry .....	\$46,911 68	\$44,071 03	.....	\$2,840 65
Lunatic Hospital .....	11,070 57	20,524 46	\$9,453 89	.....
Marcella-street Home .....	635 07	179 87	.....	455 20
Home for Paupers .....	3,398 52	2,739 06	.....	659 46
Almshouse, Charlestown .....	1,356 15	343 62	.....	1,012 53
Pauper expenses .....	2,414 06	7,720 27	5,306 21	.....
Public Institutions .....	\$65,786 05	\$75,578 31	\$14,760 10	\$4,967 84
County of Suffolk, House of Correction .....	30,373 72	29,818 57	.....	555 15
Totals .....	\$96,159 77	\$105,896 88	\$14,760 10	\$5,522 99

Net increase as above, \$9,237.11.

The sum of \$357.44 has been received for interest on the "Mason Fund," the same being for part payment of the Chaplain's salary at Deer Island.

The sources from which the income for the year 1891 have been derived are as follows, viz. :

#### HOUSE OF INDUSTRY.

Stone . . . . .	\$22,341 84
Labor . . . . .	11,087 04
Coal . . . . .	3,513 70
Bread and board for Sewer employes . .	1,402 99
Printing . . . . .	1,151 27
Board of inmates . . . . .	1,040 40
Use of teams . . . . .	795 60
Farm products . . . . .	706 84
Slippers and brogans . . . . .	393 50
Hogsheads and barrels . . . . .	341 20
Hay . . . . .	311 80

Carried forward,

\$43,086 18

<i>Brought forward,</i>	\$43,086 18
Wheelbarrows . . . . .	129 00
Use of scow and boat . . . . .	113 50
Bones and grease . . . . .	217 35
Use of room and stable . . . . .	65 00
Ferry passengers . . . . .	61 15
Carpenter's labor and stock . . . . .	67 33
Shoeing . . . . .	48 46
Junk . . . . .	46 93
Pigs . . . . .	42 00
Engineer's labor and stock . . . . .	41 73
Room and board in hospital . . . . .	35 00
Rags . . . . .	36 44
Tin-ware . . . . .	33 30
Blacksmith's repairs . . . . .	13 38
Oil . . . . .	8 63
Painting democrat wagon . . . . .	7 00
Stretchers . . . . .	5 00
Butter firkins . . . . .	3 60
Calves . . . . .	3 00
Repairing shoes . . . . .	3 00
All other items . . . . .	4 05
<b>Total . . . . .</b>	<b><u>\$44,071 03</u></b>

## LUNATIC HOSPITAL.

Board of patients . . . . .	\$20,335 76
Bones and grease . . . . .	88 98
Junk . . . . .	37 42
Barrels . . . . .	28 99
Calves . . . . .	17 50
Weighing fees . . . . .	7 77
Use of bull . . . . .	6 00
All other items . . . . .	2 04
<b>Total . . . . .</b>	<b><u>\$20,524 46</u></b>

## MARCELLA-STREET HOME.

Board of inmates . . . . .	<b><u>\$179 87</u></b>
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## HOME FOR PAUPERS, RAINSFORD'S AND LONG ISLANDS.

Board of inmates . . . . .	\$1,553 63
Farm products . . . . .	720 43
Pigs, pork, and hams . . . . .	213 02
Labor of men and teams . . . . .	122 16
Coal . . . . .	23 32
Bones . . . . .	47 93
Provisions . . . . .	16 28
Junk . . . . .	7 66
Barrels . . . . .	8 20
Rags . . . . .	7 02
Board of laborers . . . . .	8 93
Lumber . . . . .	4 08
Seed-sower . . . . .	3 00
Hardware . . . . .	3 40
<b>Total . . . . .</b>	<b><u>\$2,739 06</u></b>

## ALMSHOUSE, CHARLESTOWN.

Board of inmates . . . . .	\$340 58
Barrels . . . . .	3 04
<b>Total . . . . .</b>	<b><u>\$343 62</u></b>

## PAUPER EXPENSES.

Amount refunded for support of pa- tients in State hospitals . . . . .	<b><u>\$7,720 27</u></b>
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## COUNTY OF SUFFOLK, HOUSE OF CORRECTION.

Labor . . . . .	\$28,824 87
Bones and grease . . . . .	429 53
Rags . . . . .	244 71
Barrels . . . . .	224 16
Boxes . . . . .	68 80
Coal-tar . . . . .	36 50
<b>Total . . . . .</b>	<b><u>\$29,818 57</u></b>

**ACTUAL RUNNING EXPENSES OF THE INSTITUTIONS FOR THE  
YEAR 1891.**

	Expenditures.	Income..	Actual Cost.
House of Industry.....	\$151,784 10	\$44,071 08	\$107,713 07
Lunatic Hospital .....	85,309 76	20,524 46	64,785 30
Macella-street Home .....	42,879 44	179 87	42,699 57
Home for Paupers.....	69,879 56	2,789 06	67,140 50
Almshouse, Charlestown....	13,814 51	348 62	13,470 89
Pauper expenses .....	154,837 93	7,720 27	147,117 66
Steamer expenses .....	15,947 82	.....	15,947 82
Office expenses.....	19,511 68	.....	19,511 68
Public Institutions.....	\$553,964 80	\$75,578 81	\$478,386 49
County of Suffolk, House of Correction.....	90,190 31	29,818 57	60,371 74
<b>Totals.....</b>	<b>\$644,155 11</b>	<b>\$105,396 88</b>	<b>\$538,758 23</b>

Total expenditure for 1890	.	.	.	\$648,919 71
“ “ “ 1891	.	.	.	644,155 11
Decrease for 1891	.	.	.	<u>\$4,764 60</u>
Actual cost for 1890	.	.	.	\$552,759 94
“ “ “ 1891	.	.	.	538,758 23
Decrease for 1891	.	.	.	<u>\$14,001 71</u>

Items of expenditure for the years 1890 and 1891 compared :

HOUSE OF INDUSTRY.

	1890.	1891.	Increase.	Decrease.
Subsistence .....	\$48,818 89	\$52,234 16	\$3,415 77	
Salaries .....	38,236 83	37,188 50	.....	\$1,098 33
Stone department.....	16,571 88	18,018 94	1,447 11	
Clothing and bedding ..	15,264 39	13,484 84	.....	1,780 05
Repairs and alterations,	5,313 77	5,682 21	368 44	
Fuel and lights .....	14,101 45	11,957 81	.....	2,143 64
Religious services .....	2,813 50	1,442 55	.....	1,370 95
Furniture and utensils..	2,753 51	2,478 08	.....	275 43
Agricultural department,	2,582 96	2,670 26	87 30	
Medical supplies.....	957 05	921 72	.....	35 33
Books, printing, and stationery ..	631 31	366 48	.....	264 83
Printing department ...	366 47	458 08	91 56	
Labor and contract ....	397 71	598 67	200 96	
All other items .....	4,978 11	4,332 85	.....	645 76
Totals.....	\$153,787 28	\$151,784 10	\$5,611 14	\$7,614 32

## LUNATIC HOSPITAL.

	1890.	1891.	Increase.	Decrease.
Subsistence .....	\$27,163 68	\$30,436 49	\$3,272 81	
Salaries.....	25,750 69	27,805 68	2,054 99	
Fuel and lights .....	6,109 72	6,366 78	257 06	
Agricultural department..	5,013 00	4,210 18	.....	\$802 82
Repairs and alterations...	6,818 28	4,455 48	.....	1,862 80
Clothing and bedding.....	3,171 55	4,123 85	952 30	
Furniture and utensils....	2,250 24	2,294 82	44 08	
Water .....	1,931 34	1,762 20	.....	169 14
Medical department.....	1,387 76	1,453 39	115 63	
Soap and stock .....	579 17	876 15	296 98	
Books, printing, and stationery .....	317 77	274 41	.....	43 36
All other items .....	883 52	1,250 83	367 31	
<b>Totals .....</b>	<b>\$80,826 72</b>	<b>\$85,309 76</b>	<b>\$7,361 16</b>	<b>\$2,878 12</b>

## MARCELLA-STREET HOME.

	1890.	1891.	Increase.	Decrease.
Subsistence .....	\$13,728 58	\$13,165 55	.....	\$563 03
Salaries.....	13,787 34	13,218 69	.....	518 65
Fuel and light.....	4,203 43	5,021 45	\$818 02	
Clothing and bedding....	4,504 60	4,825 55	320 95	
Repairs and alterations...	3,253 01	1,721 74	.....	1,531 27
Agricultural department..	1,135 10	504 17	.....	630 93
Water ....	951 51	1,160 70	209 19	
Furniture and utensils....	1,151 73	1,280 28	128 55	
Medical department.....	606 41	724 99	118 58	
Books, printing, and stationery.....	263 27	176 36	.....	86 91
Soap and stock .....	290 53	292 67	2 14	
All other items .....	734 58	787 29	52 71	
Totals .....	\$44,560 09	\$42,879 44	\$1,650 14	\$3,330 79

## HOME FOR PAUPERS, RAINSFORD'S AND LONG ISLANDS.

	1890.	1891.	Increase.	Decrease.
Subsistence.....	\$24,862 99	\$29,216 69	\$4,353 70	
Salaries.....	8,844 31	9,418 50	574 19	
Repairs and alterations...	2,687 57	3,594 07	906 50	
Agricultural department..	2,767 72	2,606 81	.....	\$161 41
Clothing and bedding.....	3,760 19	7,077 26	3,317 07	
Fuel and lights.....	5,321 88	6,924 25	1,602 37	
Medical department.....	2,088 62	2,794 29	755 67	
Furniture and utensils....	1,409 98	1,609 13	259 20	
Soap and stock.....	456 30	590 41	134 11	
Water <sup>1</sup> .....	1,289 87	4,830 73	3,540 86	
Books, printing, and stationery.....	312 11	367 53	55 42	
All other items.....	635 78	790 39	154 61	
<b>Totals.....</b>	<b>\$54,387 27</b>	<b>\$69,879 56</b>	<b>\$15,653 70</b>	<b>\$161 41</b>

<sup>1</sup> Bills for 1890 and 1891 paid in 1891.



## ALMSHOUSE, CHARLESTOWN.

	1890.	1891.	Increase.	Decrease.
Subsistence.....	\$6,431 87	\$6,286 09	.....	\$145 78
Salaries.....	2,635 85	2,707 81	\$11 96	
Fuel and lights.....	1,576 91	1,547 59	.....	29 32
Clothing and bedding.....	1,266 26	870 76	.....	395 50
Agricultural department..	568 02	390 56	.....	177 46
Medical department.....	275 07½	212 06	.....	63 01
Furniture and utensils....	221 63	398 33	176 70	
Repairs and alterations...	574 79	501 41	.....	73 38
Water.....	388 58	269 93	.....	118 65
Soap and stock.....	163 11	147 77	.....	15 34
Books, printing, and stationery.....	60 71	33 91	.....	26 80
All other items.....	505 42	448 29	.....	57 13
Totals.....	\$14,728 22	\$13,814 51	\$188 66	\$1,102 37

## PAUPER EXPENSES.

	1890.	1891.	Increase.	Decrease.
Support.....	\$159,710 94	\$138,086 52	.....	\$21,674 42
Transportation.....	3,987 43	3,278 91	.....	708 52
All other items.....	13,752 48	13,522 50	.....	229 98
Totals.....	\$177,450 85	\$154,837 93	.....	\$22,612 92

## STEAMER "J. PUTNAM BRADLEE."

	1890.	1891.	Increase.	Decrease.
Manning .....	\$7,948 13	\$8,132 00	\$183 87	
Repairs .....	3,387 18	2,841 99	.....	\$545 19
Fuel .....	2,380 00	2,481 53	101 53	
Rent of dock .....	2,000 00	2,000 00	.....	
All other items .....	715 56	492 30	.....	223 26
Totals .....	\$16,430 87	\$15,947 82	\$285 40	\$768 45

## OFFICE EXPENSES.

	1890.	1891.	Increase.	Decrease.
Salaries .....	\$19,100 01	\$18,887 78	.....	\$212 23
Books, printing, and stationery .....	324 88	301 38	.....	23 50
All other items .....	348 95	322 52	.....	26 43
Totals .....	\$19,773 84	\$19,511 68	.....	\$262 16

## COUNTY OF SUFFOLK, HOUSE OF CORRECTION.

	1890.	1891.	Increase.	Decrease.
Subsistence .....	\$35,252 76	\$36,246 30	\$993 54	
Salaries .....	25,607 02	25,718 52	106 50	
Clothing and bedding	4,404 29	4,278 69	.....	\$125 60
Repairs and alterations .....	2,471 68	2,720 91	249 23	
Fuel and lights ....	6,636 90	9,517 38	2,880 48	
Water. ....	2,079 60	2,807 60	228 00	
Labor and contract..	2,654 46	2,575 98	.....	78 48
Furniture and utensils .....	1,409 66	1,076 62	.....	333 04
Religious services ..	1,588 30	1,134 10	.....	454 20
Agricultural dep't ..	1,381 87	724 40	.....	657 47
Medical dep't .....	886 92	642 99	.....	243 93
Soap and stock .....	559 92	657 86	97 94	
Books, printing, and stationery .....	395 20	270 36	.....	124 84
All other items .....	1,645 99	2,328 60	677 61	
Totals .....	\$86,974 57	\$90,190 31	\$5,233 30	\$2,017 56

## RECAPITULATION OF DIFFERENCES.

	Increase.	Decrease.	Net Increase.	Net Decrease.
House of Industry.....	\$5,611 14	\$7,614 32	.....	\$2,003 18
Lunatic Hospital .....	7,861 16	2,878 12	\$4,483 04	
Marcella-street Home...	1,650 14	3,330 79	.....	1,680 65
Home for Paupers.....	15,653 70	161 41	15,492 29	
Almshouse, Charlestown.	188 66	1,102 37	.....	913 71
Pauper expenses .....	.....	22,612 92	.....	22,612 92
Steamer " .....	285 40	768 45	.....	483 05
Office " .....	.....	262 16	.....	262 16
Public Institutions.....	\$30,750 20	\$38,730 54	\$19,975 33	\$27,955 67
County of Suffolk, House of Correction.....	5,233 80	2,017 56	3,215 74	
Totals .....	\$35,983 50	\$40,748 10	\$23,191 07	\$27,955 67

Net increase as above	.	.	.	.	\$23,191 07
Net decrease as above	.	.	.	.	27,955 67
Decrease	.	.	.	.	<u>\$4,764 60</u>

## RECAPITULATION OF DIFFERENCES IN ACTUAL COST.

	1890.	1891.	Increase.	Decrease.
House of Industry.....	\$106,875 60	\$107,713 07	\$837 47	
Lunatic Hospital .....	69,756 15	64,785 30	.....	\$4,970 85
Marcella-street Home...	43,925 02	42,699 57	.....	1,225 45
Home for Paupers .....	50,988 75	67,140 50	16,151 75	
Almshouse, Charlestown,	13,372 07	13,470 89	98 82	
Pauper expenses .....	175,086 79	147,117 66	.....	27,919 13
Steamer " .....	16,430 87	15,947 82	.....	483 05
Office " .....	19,773 84	19,511 68	.....	262 16
Public Institutions.....	\$496,159 09	\$478,386 49	\$17,088 04	\$34,860 64
County of Suffolk, House of Correction .....	56,600 85	60,371 74	3,770 89	
Totals .....	\$552,759 94	\$538,758 23	\$20,858 93	\$34,860 64

Actual cost for 1890 . . . . .	\$552,759 94
" " " 1891 . . . . .	538,758 23
Decrease . . . . .	<u>\$14,001 71</u>

**NUMBER OF INMATES REMAINING IN THE SEVERAL PUBLIC INSTITUTIONS ON DEC. 31, 1890 AND 1891.**

	1890.	1891.	Increase.	Decrease.
House of Industry .....	945	1,205	260	
House of Reformation.....	69	68	.....	1
Truant School..	70	95	25	
Paupers.....	25	18	.....	7
Lunatic Hospital .....	399	428	29	
Marcella-street Home .....	363	350	.....	13
Home for Paupers, Rainsford's and Long Islands .....	862	885	23	
Alms-house, Charlestown.....	158	150	.....	8
Public Institutions .....	2,891	3,199	308	29
County of Suffolk, House of Correction .....	537	556	19	
<b>Totals .....</b>	<b>8,428</b>	<b>8,755</b>	<b>327</b>	<b>29</b>

**Net increase . . . . . 327**

The average expenditure for and actual cost of each inmate of the Public Institutions for the year 1891 is as follows :

	Expenditure.		Actual Cost.	
	Per Year.	Per Week.	Per Year.	Per Week.
House of Industry .....	\$128 52	\$2 47	\$91 22	\$1 75
Lunatic Hospital.....	203 60	3 91	154 62	2 97
Marcella-street Home .....	170 83	3 29	170 12	3 27
Home for Paupers .....	90 40	1 74	86 86	1 67
Almshouse, Charlestown.....	95 93	1 84	98 55	1 80
County of Suffolk, House of Correction .....	167 64	3 22	112 22	2 16

AVERAGE NUMBER OF INMATES FOR THE YEARS 1890  
AND 1891.

	1890.	1891.	Increase.	Decrease.
House of Industry.....	1,075	1,006	.....	69
House of Reformation.....	94	70	.....	24
Truant School.....	97	90	.....	7
Paupers.....	16	15	.....	1
Lunatic Hospital.....	379	419	40	
Marcella-street Home .....	300	251	.....	49
Home for Paupers, Rainsford's and Long Islands .....	746	773	27	
Almshouse, Charlestown... ..	147	144	.....	3
Public Institutions .....	2,854	2,768	67	153
County of Suffolk, House of Correction ... ..	495	538	43	
Totals .....	3,349	3,306	110	153

Net decrease . . . . .

## STATEMENT FOR THE YEARS 1888-89-90-91.

Year.	Expenditures.	Income.	Net Cost.	Average Number of Inmates.	Number in State Institutions December 31.
1888	\$695,618 57	\$75,368 77	\$620,249 80	3.887	675
1889	675,122 05	88,225 40	586,896 65	3.612	738
1890	648,919 71	96,159 77	552,759 94	3.349	719
1891	644,155 11	105,396 88	538,758 23	3.306	699



## AVERAGE EXPENDITURE PER WEEK FOR EACH INMATE OF THE SEVERAL INSTITUTIONS, CLASSIFIED.

APPROPRIATIONS.	Subsistence.	Clothing and Bedding.	Fuel and Lights.	Salaries.	Furniture and Utensils.	Medical Supplies.	Agricultural Department.	Repairs.	All other Items.	Totals.
House of Industry.....	.85	.22	.19	.61	.04	.02	.04	.09	.41	2.47
Lunatic Hospital .....	1.40	.19	.29	1.28	.10	.07	.19	.20	.19	3.91
Marcella-street Home.....	1.01	.37	.38	1.01	.10	.06	.04	.08	.19	3.29
Home for Paupers.....	.73	.17	.17	.28	.04	.07	.07	.09	.17	1.74
Almshouse, Charlestown.....	.84	.11	.21	.36	.05	.03	.05	.07	.12	1.84
County of Suffolk, House of Correction .....	1.30	.15	.34	.92	.04	.02	.02	.10	.33	3.23

## EXPENDED.

INSTITUTION.	In 12 Months of 1891.	In January, 1892.	In 13 Months.
House of Industry.....	\$151,784 10	\$12,088 15	\$163,872 25
Lunatic Hospital .....	85,309 76	7,603 88	92,913 64
Marcella-street Home .....	42,879 44	3,239 78	46,119 22
Home for Paupers, Rainsford's and Long Islands.....	69,879 56	7,507 40	77,386 96
Almshouse, Charlestown.....	13,814 51	1,147 79	14,962 30
Pauper expenses .....	154,837 93	3,018 49	157,856 42
Steamer " .....	15,947 82	1,269 12	17,216 94
Office " .....	19,511 68	1,733 33	21,245 01
Public Institutions .....	\$553,964 80	\$37,607 94	\$591,572 74
County of Suffolk, House of Cor- rection.....	90,190 31	7,065 67	97,255 98
Totals .....	\$644,155 11	\$44,673 61	\$688,828 72

## INCOME.

Public Institutions .....	\$75,578 31	\$11,786 03	\$87,364 34
County of Suffolk, House of Cor- rection .....	29,818 57	1,713 13	31,531 70
Totals .....	\$105,396 88	\$13,499 16	\$118,896 04

**AMOUNT EXPENDED FOR THIRTEEN MONTHS, AND ACTUAL  
COST FOR THE SAME TIME.**

	Expended.	Income.	Actual Cost.
House of Industry.....	\$163,872 25	\$50,088 01	\$113,789 24
Lunatic Hospital.....	92,918 64	25,251 78	67,661 91
Marcella-street Home.....	46,119 22	296 48	45,822 74
Home for Paupers, Rainsford's and Long Islands.....	77,886 96	3,111 88	74,275 08
Almshouse, Charlestown.....	14,962 80	506 33	14,455 97
Pauper expenses .....	157,856 42	8,114 91	149,741 51
Steamer " .....	17,216 94	.....	17,216 94
Office " .....	21,245 01	.....	21,245 01
Public Institutions .....	\$591,572 74	\$87,864 84	\$504,208 40
County of Suffolk, House of Cor- rection .....	97,255 98	31,531 70	65,724 28
Totals .....	\$688,828 72	\$118,896 04	\$569,932 68

NUMBER OF INMATES REMAINING IN THE SEVERAL PUBLIC INSTITUTIONS JAN. 31, 1892, AND THE AVERAGE NUMBER FOR THE THIRTEEN MONTHS ENDING WITH THE SAME DATE.

INSTITUTIONS.		Number remaining Jan. 31, 1892.	Average for 13 mos. ending Jan. 31, 1892.
Deer Island Institutions.	House of Industry .....	1,188	1,021
	House of Reformation.....	71	70
	Truant School.....	92	90
	Paupers .....	18	15
Lunatic Hospital.....		429	420
Marcella-street Home.....		255	251
Home for Paupers, Rainsford's and Long Islands,		926	813
Almshouse, Charlestown .....		150	144
County of Suffolk, House of Correction.....		574	554

The number of insane and feeble-minded persons supported by the city, and remaining in State institutions and boarded in families Dec. 31, 1891, is 699, being 20 less than at the same date last year. They are located as follows :

Danvers Lunatic Hospital	71
Taunton " "	53
Northampton " "	13
Worcester " "	101
" Insane Asylum	122
Westboro' Insane Hospital	178
Tewksbury Receptacle	42
Bridgewater State Farm	22
Hospital Cottages	4
School for Feeble-minded	51
State Almshouse	1
Boarded in families	41
<b>Total</b>	<b>699</b>

There has been paid for the support of these patients for twelve months ending Dec. 31, 1891 (\$125,985.26) one hundred twenty-five thousand nine hundred eighty-five and  $\frac{28}{100}$  dollars.

At the Boston Lunatic Hospital there are remaining 429 patients; 241 of them at South Boston, and 188 at the chronic ward at Austin Farm. The latter is filled completely, and the former is crowded as never before. This condition makes it impossible to classify the patients, and the institution continues to remain, what it has been for years, a source of complaint from the friends of the patients and the public. The erection of a new dormitory at Austin Farm which will be ready for occupancy about May 1, 1892, will relieve the hospital at South Boston and furnish room for a small number from the State hospitals.

It seems scarcely necessary to refer in this report to the economy and necessity of purchasing land upon which there can be erected suitable buildings to accommodate all of the city's insane, as so much has been written on the subject in reports of former boards; yet it is our duty to again bring the subject to your attention.

In their report of last year the Commissioners gave their reasons for such recommendations, as well as in a special report to the City Council, dated Feb. 6, 1890.

That the city can care for its insane at less expense than is now paid the State (provided the accommodations recommended should be furnished) is demonstrated by the fact that, under the unfavorable existing circumstances, the net cost for each patient per week at the Boston Lunatic Hospital this year is \$2.97 as against \$3.25 per week paid the State.

With a plant large enough to accommodate all the city's insane (now about 1,200), the municipality can save a large sum each year, and much time and expense would be saved by the friends of patients now expended in visiting them in the State hospitals.

To accomplish, in part, what has been suggested, the Commissioners have requested the following appropriations for the Lunatic Hospital (Austin Farm):

For three dormitories . . . . .	\$90,000 00
a combination dining-room . . . . .	12,000 00
a new barn . . . . .	10,000 00
	<hr/>
	\$112,000 00
	<hr/>

In a communication to His Honor the Mayor, and in reply to his request, the Commissioners recommended the construction of an electric-light plant at Austin Farm, at an estimated cost of \$15,000.

With the improvements named above, we shall be able to provide for the care of 650 chronic insane.

To fully provide for all the insane of the city in our charge, there will be required further outlay, as follows, viz. :

For estimated cost of land . . . .	\$50,000 00
an administration building . . . .	25,000 00
(6) six cottages . . . .	240,000 00
heating and lighting plant . . . .	40,000 00
furnishing and incidentals . . . .	17,500 00
<b>Total . . . . .</b>	<b>\$372,500 00</b>

Should these requirements be furnished, the Commissioners predict that they will be sufficient to provide for this class of the city's wards for ten years to come.

The report of the Superintendent of the Boston Lunatic Hospital, printed herewith, fully sets forth the requirements for the proper care of this class, to which your attention is respectfully and especially called.

The examination of cases of insane and other paupers who have been supported by the city heretofore has been continued, and those found chargeable to the State and to other cities and towns have been transferred to their care.

Under the provisions of Chap. 447, Acts 1890, 52 insane persons (honorably discharged soldiers) have been taken from the pauper rolls, and are now being supported under that act.

The commitments to the House of Industry for the year ending Dec. 31, 1891, were 8,886, a decrease of 4,222 for the same period of 1890.

This decrease is due to the long-term sentences. Under the old law many persons were committed several times during the same year, their sentence being usually a fine or a short sentence, and a majority of the fines were paid.

The system of probating first offence of drunkenness after ten days' service, begun in 1889, was continued until July 1, when Chap. 427, Acts 1891, went into effect, and during the six months 1,290 persons were so probated from the House of Industry.

The new law has not been sufficiently long in operation to show what the probable ultimate result may be. Thus far,

however, it has had the effect to increase the average numbers at the House of Industry and House of Correction. The Commissioners doubt that a fair criticism of the law can be made until it shall have been in operation at least a year. One fact is, however, apparent, viz., that the increase of inmates is composed largely of a class of young men who under the old system escaped imprisonment by the payment of their fines.

The crowded condition of the House of Industry demands an additional prison-building. There are at the present time over four hundred men sleeping in the corridors and dormitories, which is a great cause of the subversion of discipline.

The Commissioners, in a communication to His Honor the Mayor on Dec. 29, 1891, recommended the erection of a new wing to contain 400 cells at an estimated cost of \$60,000, and they believe it absolutely necessary to have these accommodations, so as to be able to care for the constantly increasing number of inmates.

The recommendations made in the last annual report regarding the enlargement of the room used by the inmates in stormy weather and on Sundays, and to make a connection between the pond and the main building (in case the Mystic water-supply should be cut off from any cause), are renewed.

The number of boys remaining in the House of Reformation Dec. 31, 1891, was 68, a decrease of 1 from the year previous. The number remaining at the Truant School at the same time was 95, against 70 on the same date in 1890.

The recommendations of the Commissioners made in their report of 1889 and renewed in 1890, relating to the removal of the Truant School to the mainland, are again called to your careful attention, and it is earnestly hoped that the City Council will act immediately in carrying out the provisions of Chap. 282, Acts of 1886.

Two sections of the Metropolitan Sewer have been finished on Deer Island, and the grounds partially restored to their former condition. Until the construction of the sewer is completed, there will be great annoyance to the institution, because the presence of workmen employed in its construction requires more officers and greater vigilance, to prevent the conveyance of liquor to the prisoners who are engaged in farm and other outside work.

The number remaining at the Home for Paupers Dec. 31, 1891, was 885, an increase of 23 over the number Dec. 31, 1890.

The institution is in as good condition as the circumstances warrant.

The needs are a coal-shed, ice-house, piggery, and barn at Long Island, and coal-shed at Rainsford's. Special appropriations have been requested for the foregoing, and it is hoped that the City Council will vote the appropriations. Chimneys erected on the present building at Long Island, for the purposes of ventilation, are needed, which, with the completion of the hospital now in course of construction, and the other improvements referred to above, will place this institution in a most excellent condition, and it will be large enough to accommodate the paupers for many years. A partial description of the hospital building is given below, and when the building is ready for occupancy it will be one of the best and most economically constructed hospitals on this continent.

"The original plan of the Cottage Hospital at Long Island, Boston harbor, calls for a building 211 feet by 315 feet, divided into three main ward-rooms, connected across the front with a corridor 15 feet wide, in the centre of which is the administrative building, 49 feet by 52 feet, and at the ends the head-houses, each 45 feet by 49 feet. This arrangement forms two large interior courts for light and air, each 90 feet by 160 feet, between the central and the end wards. When the whole building is completed, there will be ample accommodations for 300 beds in the ward-rooms, together with the quarters for the physicians, nurses, attendants, etc., in the head-houses and administrative building.

"At present the right wing is built, consisting of a ward-room containing 100 beds, and the head-house with rooms for special patients, nurses, linen closets, diet kitchens, etc., together with the corridor connecting the administrative building.

"This last-mentioned building is three stories high, all the others being but one, and contains twenty rooms for the physicians, nurses, matrons, etc.

"In construction, the aim has been to make this building as nearly fire-proof as it is possible for a frame building to be. The exterior walls are covered with cement mortar, with the panels formed of wooden strips, in the style of the English 'open-timber' work. This cement is placed directly upon the terra-cotta lumber, which forms the walls of the ward-rooms; and upon stiffened wire-laths for the corridors. The exterior walls of the corridors and administrative building are built of three-inch plank, grooved and splined together, and plastered inside and outside, making a wall impossible for the passage of fire or vermin. The



exterior walls of the ward-rooms and head-houses are of terra-cotta lumber, plastered directly on both sides, thereby preventing any possible flue or passage for fire or vermin, and yet the terra-cotta is of such a porous nature that, with the cement coating on the outside, we are assured of a dry, warm wall on the interior.

"The floors are built of 'mill or slow-burning' construction, which uses very large hard-pine timbers, covered with three-inch plank, making a floor so solid that it would require many hours for a fire to burn through from one floor to another.

"The heating and the ventilation of this building are still under consideration, but the ward-rooms will be ventilated by a register under each bed, running to a large main vent, and from thence to the brick stacks, which extend through the roof."

Ground was broken in October. The cellars and foundation were dug and built by the inmates of the Home, assisted by labor from the House of Industry, the stone furnished being the refuse of the stone-yard at Deer Island.

The contract for the building was made with Mr. Neil McNeil for \$44,776.

The work has progressed rapidly, and will be completed in the early spring.

The City Council in December authorized the construction of an additional wing, the money, \$35,000, being transferred for that purpose from a surplus of appropriation for 1891-92 for this department.

An estimate of \$12,500 has been forwarded to the Mayor for an electric plant for this institution.

The number remaining at the House of Correction Dec. 31, 1891, was 556, an increase of 19 over Dec. 31, 1890.

Sixty-seven cases of first offence of drunkenness were placed on probation up to July 1, when the new law relating to drunkenness went into effect.

Additional buildings are needed at this institution, a prison-building to contain 400 cells, and a hospital which will accommodate at least 30 patients. An estimate of the cost of these, \$60,000 for the prison and \$25,000 for the hospital, was transmitted to His Honor Mayor Matthews, on Dec. 29, 1891.

The Marcella-street Home is in good condition; the roofs of the main buildings have been thoroughly repaired, and a new roof put on the stable.

At the Charlestown Almshouse considerable repairs have been made, the labor being largely performed by the inmates.

The steamer "J. Putnam Bradlee" has made its regular daily trips, and is in good condition.

There have been but few changes of officials. Dr. Daniel S. Harkins succeeded Dr. Wm. B. Holmes, resigned, as physician at Home for Paupers, Jan. 17, 1891. An additional assistant physician (Dr. C. E. Dever) was appointed at the same institution.

We respectfully refer you to the reports of the superintendents of the several institutions, which are annexed herewith, for details of their condition and management.

The Commissioners, in conclusion, have the honor to state that the Mayor and City Council have promptly answered their requests for means to make improvements; the superintendents have been faithful and have been in accord with the views and desires of the Commissioners, thereby supporting the Board in managing the department in a manner, we believe, satisfactory alike to the city government and the public.

Respectfully,

For the Commissioners of Public Institutions,

THOS. L. JENKS,

*Chairman.*

# REPORT OF THE SUPERINTENDENT OF DEER ISLAND INSTITUTIONS.

DEER ISLAND, BOSTON HARBOR, Jan. 1, 1892.

*To the Commissioners of Public Institutions:*

GENTLEMEN: The report of the institutions located on Deer Island, for the year ending Dec. 31, 1891, which comprises the House of Industry for male and female prisoners, House of Reformation, and Truant School for boys, is respectfully submitted.

Statistics will show that when the new law for drunkenness went into effect, July 1, 1891, the number of inmates in the House of Industry was:

Men	.	.	.	.	.	.	.	.	.	762
Women	.	.	.	.	.	.	.	.	.	252
Total	.	.	.	.	.	.	.	.	.	1,014

The number remaining July 29, 1891, was:

Men	.	.	.	.	.	.	.	.	.	447
Women	.	.	.	.	.	.	.	.	.	209
Total	.	.	.	.	.	.	.	.	.	656

a decrease of 358 in less than thirty days. Since that time the number has been steadily increasing, and the number remaining Dec. 31, 1891, is:

Men	.	.	.	.	.	.	.	.	.	868
Women	.	.	.	.	.	.	.	.	.	337
Total	.	.	.	.	.	.	.	.	.	1,205

an increase in five months of:

Men	.	.	.	.	.	.	.	.	.	421
Women	.	.	.	.	.	.	.	.	.	128
Total	.	.	.	.	.	.	.	.	.	549

We are overcrowded. There are now lodged outside of cells :

Men . . . . .	458
Women . . . . .	337
Total . . . . .	<hr/> 795

there being only 410 cells for men. The women all sleep in dormitories ; there should be an appropriation to extend the male wing. Until this is done, unless there is a large decrease in numbers, which will not be realized under the present law, our dormitories must remain in a crowded condition. Our " loafers' hall " for men should be the first place attended to, for on a cold or stormy day it is so overcrowded the air is almost too poor to breathe. The sheds in the men's yard, if they were rebuilt and carried up two stories in height, would give us much-needed shop or sleeping room ; it would only cost for material, as we could furnish all labor.

Employment of inmates, at a profit to the institution, is a question of serious import, with our present number.

If the Truant boys could be removed to the mainland, and the Reformation boys to their quarters, it would give all of the House of Industry to the men, and the Reformation building for women. That would accommodate some 400 more men, and give plenty of room for all of the women, and considerable more shop room.

Repairs have been made on the steamboat wharf, piles have been driven, and the planking kept in repair ; a set of shears has been made for the coal wharf and put into position, so that we can take coal from any kind of a vessel or scow that may come to the wharf.

Sections two and three of the Metropolitan Sewer are completed. Work on the pumping-station will commence in the spring. It relieves us, for a short time, of a crowd of laborers that have been roaming around the island for the past one and a half years. It has been a detriment to good discipline.

The number of boys at the House of Reformation has decreased, being, Jan. 1, 1891, 69, now, December 31, 68. Competent and devoted teachers have been employed, and their services are appreciated. The health of the boys has been generally good ; but little sickness existed, one death having occurred. Joseph Daily, age 15 years, one of the printers, died from typhoid fever November 11. It was our first death among the boys for many years. There are twelve boys learning to be printers, under the instruction

of Mr. Morrill. This department has been the means of starting quite a number of discharged boys with a trade to earn a living.

The Truant boys are larger in number than they were a year ago, January 1 the number being 69, against 95 for December 31. They are under the instruction of competent and faithful teachers. Progress in studies has been satisfactory, and discipline has been fully maintained without frequent or harsh punishments. There has been but little sickness and no death.

Our ice-crop last winter was very good. We housed 700 tons, which is all our ice-house will hold. We have furnished Rainsford's and Long Islands with what ice they require, which amounted to 130 tons. We have furnished one officer and an average of fifty men, every working day, to the Home for Paupers on Long Island, for the past eight months.

Received for fines and costs, \$10,047.43, against \$17,-358.44 for 1890. The decrease is due to the new drunk-law. We have received no fines for drunkenness since July 1, as every one has a sentence.

Mechanics are employed at their several trades on all repairs, painting, carpentering, shoemaking, upholstering, blacksmithing, tin and wooden ware, wheelbarrows, etc. An average of 86 men are employed at stone-cutting. We have furnished to the city 37,065 feet of edgestones, 179 catch-basins, 444 corners, 3,960 paving-blocks. If our blacksmith-shop was enlarged, so as to run one or two more fires for sharpening tools, we might increase the men then to 140.

One hundred and twenty-five men and fifty women are running sewing-machines and making shirts, jumpers, overalls, coats, pants, vests, and all the institution work in the line of sewing.

Miss Sarah P. Burnham still looks after the interests of all discharged female prisoners. Mr. John E. McCarthy aids all male prisoners who require assistance, and provides country homes for boys having no friends to care for them. The boys' brass band in the House of Reformation has been discontinued, Professor Ripley, having had charge since the organization in 1874, being obliged to retire on account of poor health.

The annual examination of schools was held June 23, under the direction of Commissioners Otis K. Newell and Thomas H. Devlin.

The Rev. Mr. Toulmin, Chaplain of the Institutions and Superintendent of Schools, has attended to his duties faithfully. He has also paid weekly visits to Long and Rains-

ford's Islands. The Rev. Father Broderick has conducted the Catholic services, celebrating mass every Sunday forenoon, and visits the island two or three times a week, looking after the spiritual welfare of those of his faith. Dr. Roche, the Resident Physician, has attended to his duties faithfully, and ably supported me as regards discipline. Dr. C. H. Cogswell, Port Physician, and his assistant, Dr. Rufus E. Darrah, have responded to all calls cheerfully. They have endeared themselves to us by their gentlemanly deportment and unassuming manner; also, we are indebted to them for the use of the quarantine steamboat "Vigilant," which is placed at our disposal at any and all times when occasion requires the use of a steamboat for special trips to the city and Long and Rainsford's Islands. My thanks are due to the Board of Health Commissioners, individually and collectively, for many favors received. Good health has prevailed. The farm stock is in good condition. We had an excellent crop of all kinds, except hay, which was only an average one. The following were the principal products:

Hay . . . . .	115 tons.
Oat and rye fodder . . . . .	25 "
Corn fodder and ensilage . . . . .	175 "
Squashes . . . . .	10 "
Pumpkins . . . . .	15 "
Mangel-wurzel beets . . . . .	2,800 bushels.
Onions . . . . .	1,800 "
Carrots . . . . .	1,000 "
Potatoes . . . . .	440 "
Turnip blood-beets . . . . .	450 "
Turnips . . . . .	1,100 "
Parsnips . . . . .	200 "
Cabbages . . . . .	5,000 heads.
Tomatoes . . . . .	1,200 bushels.
Celery . . . . .	4,000 bunches.
Rhubarb . . . . .	2,500 lbs.
Strawberries . . . . .	700 boxes.
Apples . . . . .	60 barrels.
Cucumbers for pickle . . . . .	7 "
Pears . . . . .	110 bushels.
Eggs . . . . .	500 dozen.
Ducks raised . . . . .	85
Milk . . . . .	162,345 lbs.
Butter . . . . .	1,053 "

The piggery has produced as follows :

Pork slaughtered, 44,570 lbs., at 7c.	\$3,119 90
Sale of live pigs	270 00
Sale of soap-grease	132 89
280 cords of manure, at \$2.50	700 00
555 hhds. soft-soap, at \$5.00	\$2,775 00
Cost for stock	115 50
	<hr/>
	2,659 50
	<hr/>
	<u>\$6,882 29</u>

Given to inmates on their discharge, 3,142 articles of clothing. There were made for our use and wear 1,825 pairs men's brogans, 492 pairs boys' brogans, 780 pairs women's shoes, 512 pairs women's slippers, 5,450 dresses, etc., 1,662 towels and rollers, 3,504 sheets, pillow-slips, and ticks, 41 table-cloths and shades, 3,023 pairs socks, 140 $\frac{1}{2}$  dozen overalls, 414 dozen woollen shirts, 107 $\frac{1}{2}$  dozen cotton shirts, 1,143 coats, 1,798 pairs pants, 1,138 vests, 1,925 pairs suspenders. We have also cut, made, and trimmed for the Home for Paupers 20 $\frac{1}{2}$  dozen woollen shirts, 6 dozen cotton shirts, 12 $\frac{1}{2}$  dozen woollen drawers, 260 coats, 392 vests, 335 pairs pants; for Charlestown Almshouse, 41 pairs pants, 26 vests, 51 $\frac{1}{2}$  dozen woollen shirts, and for Marcella-street Home, 31 pairs pants.

Gas of a good quality, at an average cost of 56 cents per 1,000 cubic feet, has been made on the premises. I would again call your attention to the electric-light system, and also in regard to the laying of water-pipes from our ice pond to the main pipes, as we can keep 1,000,000 gallons of water there in storage in case of an emergency.

With a few exceptions the officers and matrons have performed their duties faithfully, and have ably supported me under trying circumstances, and are worthy of the respect and confidence placed in them. I would suggest and recommend that all superintendents have full power to discharge, and not suspend, officers; for, without full control of them, many are inclined to take advantage. Should one be successful and retain his position after being suspended, it breeds discontent among other officers. A superintendent's first duty is to have his officers under good discipline, if he wishes to retain it among the inmates.

Accompanying this are the reports of Dr. Thomas F. Roche, the Resident Physician, and the Rev. Mr. Toulmin, Chaplain and Superintendent of Schools, and the usual statistics of the several institutions.

In conclusion, gentlemen, permit me to thank you for favors received. To the Chairman, Dr. Thomas L. Jenks, I am especially indebted for his able support and advice freely given at all times, for his frequent visits and constant oversight of affairs here, a knowledge of which he has gained through years of experience. His familiarity with every detail has enabled him to understand all matters, minor and important, giving me the benefit of his excellent executive ability, and his prompt disposition of the same has relieved me of much responsibility, for which I desire to return my warmest thanks and unbounded gratitude.

Very respectfully,

JAMES R. GERRISH,

*Superintendent.*

DEER ISLAND, Dec. 31, 1891.



## ALMSHOUSE DEPARTMENT.

	Men.	Women.	Boys.	Girls.	Total.
Remaining Dec. 31, 1890 .	8	4	0	0	12
Admitted . . . . .	146	59	2	1	208
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	154	63	2	1	220
Discharged . . . . .	142	58	1	1	202
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Remaining Dec. 31, 1891 .	<u>12</u>	<u>5</u>	<u>1</u>	<u>0</u>	<u>18</u>

During the year there were admitted to this department 9 males and 2 females from the House of Industry, who were too sick to leave upon expiration of sentence.

The above also includes one boy admitted during the year as a neglected child.

There have been 19 deaths during the year.

## HOUSE OF INDUSTRY DEPARTMENT.

	Men.	Women.	Total.
Remaining Dec. 31, 1890 .	751	194	945
Committed . . . . .	7,017	1,849	8,866
	<hr/>	<hr/>	<hr/>
	7,768	2,043	9,811
Discharged . . . . .	6,900	1,706	8,606
	<hr/>	<hr/>	<hr/>
Remaining Dec. 31, 1891 .	<u>868</u>	<u>337</u>	<u>1,205</u>

## CHILDREN OF SENTENCED MOTHERS.

Remaining Dec. 31, 1890 . . . . .	11
Admitted . . . . .	62
	<hr/>
	73
Discharged . . . . .	58
	<hr/>
Remaining Dec. 31, 1891 . . . . .	<u>15</u>

One child of the above died during the year.

*Causes for discharge:*

Expired sentence . . . . .	5,663
Fines paid . . . . .	1,474
Pardoned . . . . .	1,430
Died . . . . .	28
Bailed . . . . .	5

## DEPARTMENT OF PUBLIC INSTITUTIONS.

41

Escaped . . . . .	4
Transferred to Insane Asylum . . . . .	2
Total . . . . .	<u>8,606</u>

*Offences for which committed:*

Drunkenness . . . . .	6,933
Assault and battery . . . . .	584
Larceny . . . . .	543
Vagrant . . . . .	122
Idle and disorderly . . . . .	111
Fornication . . . . .	91
Common night-walker . . . . .	76
Disturbing the peace . . . . .	55
Breaking glass . . . . .	47
Profanity . . . . .	38
Obstructing sidewalk . . . . .	23
Common drunkard . . . . .	21
Unlawfully selling intoxicating liquors . . . . .	16
Non-support . . . . .	14
Malicious injury . . . . .	13
Walking on railroad track . . . . .	12
Embezzlement . . . . .	11
Assault with weapon . . . . .	10
Unlawful appropriation . . . . .	10
Gaming on the Lord's day . . . . .	9
Receiving stolen goods . . . . .	9
Evading fare . . . . .	8
Trespass . . . . .	8
Keeping noisy and disorderly house . . . . .	8
Assault . . . . .	7
Indecent exposure . . . . .	6
False pretences . . . . .	6
Cruelty to animals . . . . .	5
Violation of ordinance . . . . .	5
Vagabond . . . . .	4
Common railer and brawler . . . . .	4
Being present at game on Lord's day . . . . .	3
Keeping liquor nuisance . . . . .	3
Threats . . . . .	3
Disturbing an assembly . . . . .	3
Attempted larceny . . . . .	3
Throwing missiles in street . . . . .	3
Lewd and lascivious cohabitation . . . . .	2
Loitering in railroad station . . . . .	2
Obscenity . . . . .	2

An affray . . . . .	2
Fraudulent conveyance of property . . . . .	2
Stubborn child . . . . .	2
Carrying dangerous weapon . . . . .	2
Unlicensed peddling . . . . .	2
Keeping an unlicensed dog . . . . .	2
Disturbing traveller in public conveyance . . . . .	2
Throwing filth in street . . . . .	2
Discharging firearms . . . . .	1
Rescuing prisoner . . . . .	1
Keeping house of ill-fame . . . . .	1
Setting up and promoting a lottery . . . . .	1
Unlawfully allowing horse and vehicle to stand in street . . . . .	1
Violation of milk statute . . . . .	1
Obstructing street . . . . .	1
Assault on an officer . . . . .	1
Unlawful bathing . . . . .	1
Unlawful entering . . . . .	1
Permitting minor child to peddle without license, Larceny from person . . . . .	1
Breaking and entering and larceny . . . . .	1
Adultery . . . . .	1
Attempt to rescue prisoner . . . . .	1
Making false fire-alarm . . . . .	1
Refusing to aid police officer in making arrest . . . . .	1
Total . . . . .	8,866

Of the above there were transferred from the House of Correction 2 women; and returned from probation 17 men and 1 woman.

*Sentences of those committed:*

Non-payment of fines . . . . .	6,555
15 days . . . . .	4
3 weeks . . . . .	1
30 days . . . . .	30
40 " . . . . .	3
60 " . . . . .	4
90 " . . . . .	8
1 month . . . . .	16
2 months . . . . .	36
3 " . . . . .	54
4 " . . . . .	37
5 " . . . . .	11

## DEPARTMENT OF PUBLIC INSTITUTIONS.

43

6 months	.	.	.	.	.	.	.	485
7 "	.	.	.	.	.	.	.	2
8 "	.	.	.	.	.	.	.	58
9 "	.	.	.	.	.	.	.	68
10 "	.	.	.	.	.	.	.	41
11 "	.	.	.	.	.	.	.	2
12 "	.	.	.	.	.	.	.	41
13 "	.	.	.	.	.	.	.	2
14 "	.	.	.	.	.	.	.	1
15 "	.	.	.	.	.	.	.	1
16 "	.	.	.	.	.	.	.	1
Returned from probation	.	.	.	.	.	.	.	18

Total . . . . . 8,866

Of the above there were under bonds for

3 months	.	.	.	.	.	.	.	2
6 "	.	.	.	.	.	.	.	7
12 "	.	.	.	.	.	.	.	3

Total . . . . . 12

*Number sentenced for drunkenness:*

Males	.	.	.	.	.	.	.	5,473
Females	.	.	.	.	.	.	.	1,459

Total . . . . . 6,932

*Number sentenced as common drunkards:*

Males	.	.	.	.	.	.	.	11
Females	.	.	.	.	.	.	.	10

Total . . . . . 21

*Number sentenced for offences other than drunkenness:*

Males	.	.	.	.	.	.	.	1,533
Females	.	.	.	.	.	.	.	380

Total . . . . . 1,913

*Number sentenced for non-payment of fines for drunkenness:*

Males	.	.	.	.	.	.	.	4,338
Females	.	.	.	.	.	.	.	1,016

Total . . . . . 5,354

*Number of times persons sentenced as common drunkards have been committed to the House of Industry:*

For the 1st	time	.	.	.	.	.	.	8
" 2d	"	.	.	.	.	.	.	6
" 3d	"	.	.	.	.	.	.	3
" 8th	"	.	.	.	.	.	.	1
" 9th	"	.	.	.	.	.	.	1
" 12th	"	.	.	.	.	.	.	1
" 76th	"	.	.	.	.	.	.	1
<hr/>								
Total		.	.	.	.	.	.	21
<hr/>								

*Number of times persons committed for non-payment of fines for drunkenness have been committed to the House of Industry, from January 1, 1891, to June 30, 1891, inclusive:*

For the 1st	time	.	.	.	.	.	.	1,785
" 2d	"	.	.	.	.	.	.	546
" 3d	"	.	.	.	.	.	.	414
" 4th	"	.	.	.	.	.	.	301
" 5th	"	.	.	.	.	.	.	259
" 6th	"	.	.	.	.	.	.	212
" 7th	"	.	.	.	.	.	.	195
" 8th	"	.	.	.	.	.	.	152
" 9th	"	.	.	.	.	.	.	136
" 10th	"	.	.	.	.	.	.	127
" 11th	"	.	.	.	.	.	.	107
" 12th	"	.	.	.	.	.	.	101
" 13th	"	.	.	.	.	.	.	82
" 14th	"	.	.	.	.	.	.	65
" 15th	"	.	.	.	.	.	.	71
" 16th	"	.	.	.	.	.	.	70
" 17th	"	.	.	.	.	.	.	66
" 18th	"	.	.	.	.	.	.	56
" 19th	"	.	.	.	.	.	.	43
" 20th	"	.	.	.	.	.	.	32
" 21st	"	.	.	.	.	.	.	42
" 22d	"	.	.	.	.	.	.	33
" 23d	"	.	.	.	.	.	.	36
" 24th	"	.	.	.	.	.	.	29
" 25th	"	.	.	.	.	.	.	30
" 26th	"	.	.	.	.	.	.	29
" 27th	"	.	.	.	.	.	.	33
" 28th	"	.	.	.	.	.	.	28
" 29th	"	.	.	.	.	.	.	17
" 30th	"	.	.	.	.	.	.	16

For the 31st time	.	.	.	.	.	.	15
“ 32d “	.	.	.	.	.	.	15
“ 33d “	.	.	.	.	.	.	15
“ 34th “	.	.	.	.	.	.	11
“ 35th “	.	.	.	.	.	.	10
“ 36th “	.	.	.	.	.	.	10
“ 37th “	.	.	.	.	.	.	15
“ 38th “	.	.	.	.	.	.	11
“ 39th “	.	.	.	.	.	.	12
“ 40th “	.	.	.	.	.	.	5
“ 41st “	.	.	.	.	.	.	5
“ 42d “	.	.	.	.	.	.	4
“ 43d “	.	.	.	.	.	.	4
“ 44th “	.	.	.	.	.	.	6
“ 45th “	.	.	.	.	.	.	3
“ 46th “	.	.	.	.	.	.	2
“ 47th “	.	.	.	.	.	.	1
“ 48th “	.	.	.	.	.	.	5
“ 49th “	.	.	.	.	.	.	5
“ 50th “	.	.	.	.	.	.	1
“ 51st “	.	.	.	.	.	.	1
“ 52d “	.	.	.	.	.	.	4
“ 53d “	.	.	.	.	.	.	2
“ 54th “	.	.	.	.	.	.	4
“ 55th “	.	.	.	.	.	.	3
“ 56th “	.	.	.	.	.	.	1
“ 57th “	.	.	.	.	.	.	2
“ 58th “	.	.	.	.	.	.	7
“ 59th “	.	.	.	.	.	.	9
“ 60th “	.	.	.	.	.	.	6
“ 61st “	.	.	.	.	.	.	8
“ 62d “	.	.	.	.	.	.	6
“ 63d “	.	.	.	.	.	.	6
“ 64th “	.	.	.	.	.	.	4
“ 65th “	.	.	.	.	.	.	2
“ 66th “	.	.	.	.	.	.	1
“ 67th “	.	.	.	.	.	.	1
“ 68th “	.	.	.	.	.	.	3
“ 69th “	.	.	.	.	.	.	2
“ 70th “	.	.	.	.	.	.	1
“ 71st “	.	.	.	.	.	.	1
“ 72d “	.	.	.	.	.	.	1
“ 73d “	.	.	.	.	.	.	1
“ 74th “	.	.	.	.	.	.	2
“ 75th “	.	.	.	.	.	.	1
“ 76th “	.	.	.	.	.	.	1
“ 89th “	.	.	.	.	.	.	1

For the 91st time	.	.	.	.	.	.	1
“ 92d “	.	.	.	.	.	.	1
“ 93d “	.	.	.	.	.	.	1
“ 94th “	.	.	.	.	.	.	1
Total .	.	.	.	.	.	.	<u>5,353</u>

## HOUSE OF REFORMATION DEPARTMENT.

Remaining Dec. 31, 1890	.	.	.	.	.	Boys. 69
Committed	.	.	.	.	.	76
						<u>145</u>
Discharged	.	.	.	.	.	77
Remaining Dec. 31, 1891	.	.	.	.	.	<u>68</u>

*Offences for which committed:*

Larceny	.	.	.	.	.	.	32
Breaking and entering	.	.	.	.	.	.	23
Stubborn child	.	.	.	.	.	.	10
Breaking and entering and larceny	.	.	.	.	.	.	3
Unlawful appropriation	.	.	.	.	.	.	2
Assault and battery	.	.	.	.	.	.	2
Attempted breaking and entering	.	.	.	.	.	.	1
Attempt to burn school-house	.	.	.	.	.	.	1
Vagrant	.	.	.	.	.	.	1
Attempted larceny	.	.	.	.	.	.	1
Total	.	.	.	.	.	.	<u>76</u>

Of the above there were returned from probation, 5.

*Sentences of those committed:*

Minority	.	.	.	.	.	.	<u>76</u>
----------	---	---	---	---	---	---	-----------

*Causes for discharge:*

Pardoned	.	.	.	.	.	.	76
Died	.	.	.	.	.	.	1
Total	.	.	.	.	.	.	<u>77</u>

*Nativity of those committed:*

Boston . . . . .	50
New York . . . . .	5
Rhode Island . . . . .	2
Maine . . . . .	2
New Brunswick . . . . .	2
Ireland . . . . .	2
Pennsylvania . . . . .	2
Massachusetts . . . . .	1
Germany . . . . .	1
Maryland . . . . .	1
New Hampshire . . . . .	1
Poland . . . . .	1
Nova Scotia . . . . .	1
Kentucky . . . . .	1
Russia . . . . .	1
Sweden . . . . .	1
England . . . . .	1
North Carolina . . . . .	1
Total . . . . .	<u>76</u>

*Ages of those committed:*

8 years . . . . .	1
10 " . . . . .	2
11 " . . . . .	8
12 " . . . . .	17
13 " . . . . .	13
14 " . . . . .	20
15 " . . . . .	14
16 " . . . . .	1
Total . . . . .	<u>76</u>

## TRUANT-SCHOOL DEPARTMENT.

	Boys.	Girls.	Total.
Remaining Dec. 31, 1890 . . . . .	70	0	70
Committed . . . . .	147	1	148
	<u>217</u>	<u>1</u>	<u>218</u>
Discharged . . . . .	123	0	123
	<u>94</u>	<u>1</u>	<u>95</u>
Remaining Dec. 31, 1891 . . . . .			



*Offences for which committed:*

	Boys.	Girls.	Total
Truants . . . . .	139	1	140
Absentees . . . . .	8	0	8
Total . . . . .	<u>147</u>	<u>1</u>	<u>148</u>

*Sentences of those committed:*

	Boys.	Girls.	Total
2 months . . . . .	2	0	2
3 " . . . . .	7	0	7
4 " . . . . .	9	0	9
5 " . . . . .	1	0	1
6 " . . . . .	43	0	43
7 " . . . . .	6	0	6
8 " . . . . .	5	0	5
9 " . . . . .	5	0	5
10 " . . . . .	1	0	1
11 " . . . . .	1	0	1
12 " . . . . .	43	1	44
18 " . . . . .	4	0	4
24 " . . . . .	19	0	19
Returned from probation . . . . .	1	0	1
Total . . . . .	<u>147</u>	<u>1</u>	<u>148</u>

*Ages of those committed:*

	Boys.	Girls.	Total
7 years . . . . .	1	0	1
8 " . . . . .	4	0	4
9 " . . . . .	8	0	8
10 " . . . . .	24	0	24
11 " . . . . .	31	0	31
12 " . . . . .	38	0	38
13 " . . . . .	28	0	28
14 " . . . . .	12	1	13
15 " . . . . .	1	0	1
Total . . . . .	<u>147</u>	<u>1</u>	<u>148</u>

*Nativity of those committed:*

	Boys.	Girls.	Total
Boston . . . . .	94	0	94
Italy . . . . .	10	0	10
New York . . . . .	8	0	8
Massachusetts . . . . .	6	1	7
England . . . . .	6	0	6

	Boys.	Girls.	Total.
Ireland . . . . .	6	0	6
Scotland . . . . .	3	0	3
Prince Edward Island . . . . .	2	0	2
Germany . . . . .	2	0	2
Russia . . . . .	2	0	2
Connecticut . . . . .	1	0	1
Maine . . . . .	1	0	1
Pennsylvania . . . . .	1	0	1
New Brunswick . . . . .	1	0	1
Nova Scotia . . . . .	1	0	1
Poland . . . . .	1	0	1
France . . . . .	1	0	1
Australia . . . . .	1	0	1
Totals . . . . .	<u>147</u>	<u>1</u>	<u>148</u>

*Causes for discharge:*

	Boys.	Girls.	Total.
Expired sentence . . . . .	81	0	81
Pardoned . . . . .	42	0	42
Totals . . . . .	<u>123</u>	<u>0</u>	<u>123</u>

*Total number for all departments:*

Largest, House of Industry . . . . .	1,228
“ “ “ Reformation . . . . .	76
“ Truant School . . . . .	113
“ Almshouse . . . . .	<u>22</u>
Smallest, House of Industry . . . . .	675
“ “ “ Reformation . . . . .	66
“ Truant School . . . . .	64
“ Almshouse . . . . .	<u>10</u>
Average, House of Industry . . . . .	1,006
“ “ “ Reformation . . . . .	70
“ Truant School . . . . .	90
“ Almshouse . . . . .	<u>15</u>
Total average . . . . .	<u>1,181</u>

Respectfully submitted,

JAMES R. GERRISH,

*Superintendent.*

## REPORT OF RESIDENT PHYSICIAN.

*To JAMES R. GERRISH, ESQ., Superintendent of Deer Island  
Institutions:*

SIR: I herewith respectfully submit the annual report of the Medical Department of the institutions under your supervision.

### ALMSHOUSE.

Patients remaining in hospital Jan. 1, 1891 . . . . .	15
Admitted :	
Males . . . . .	151
Females . . . . .	59
	— 210
Total . . . . .	225
Discharged . . . . .	186
Died . . . . .	19
	— 205
Remaining in hospital Jan. 1, 1892 . . . . .	17
Total . . . . .	222
Largest number in hospital at any time . . . . .	20
Smallest number in hospital at any time . . . . .	8
Daily average . . . . .	14

### HOUSE OF INDUSTRY.

Patients remaining in hospital Jan. 1, 1891 . . . . .	54
Admitted :	
Males . . . . .	974
Females . . . . .	864
	— 1,838
Total . . . . .	1,892

Discharged . . . . .	1,778	
Died . . . . .	28	
	<hr/>	1,806
Remaining in hospital Jan. 1, 1892 . . . . .		86
		<hr/>
Total . . . . .		<u>1,892</u>
Largest number in hospital at any time . . . . .		92
Smallest number in hospital at any time . . . . .		25
Daily average . . . . .		51

## HOUSE OF REFORMATION.

Patients remaining in hospital Jan. 1, 1891 . . . . .		0
Admitted :		
Males . . . . .	25	
Females . . . . .	0	
	<hr/>	25
Total . . . . .		<u>25</u>
Discharged . . . . .	19	
Died . . . . .	1	
	<hr/>	20
Remaining in hospital Jan. 1, 1891 . . . . .		5
		<hr/>
Total . . . . .		<u>25</u>
Largest number in hospital at any time . . . . .		5
Smallest number in hospital at any time . . . . .		0
Daily average . . . . .		1+

## TRUANT SCHOOL.

Patients remaining in hospital Jan. 1, 1891 . . . . .		0
Admitted :		
Males . . . . .	29	
Females . . . . .	0	
	<hr/>	29
Total . . . . .		<u>29</u>
Discharged . . . . .	22	
Died . . . . .	0	
	<hr/>	22
Remaining in hospital Jan. 1, 1892 . . . . .		7
		<hr/>
Total . . . . .		<u>29</u>

Largest number remaining in hospital at any time . . . . .	7
Smallest number remaining in hospital at any time . . . . .	0
Daily average . . . . .	1—

## RECAPITULATION.

## Number of patients in hospitals Jan. 1, 1891:

Almshouse . . . . .	12	
House of Industry . . . . .	54	
House of Reformation . . . . .	0	
Truant School . . . . .	0	
	—	60

## Admitted:

Almshouse . . . . .	210	
House of Industry . . . . .	1,838	
House of Reformation . . . . .	25	
Truant School . . . . .	29	
	—	2,102

Total . . . . . 2,162

## Discharged:

Almshouse . . . . .	186	
House of Industry . . . . .	1,778	
House of Reformation . . . . .	19	
Truant School . . . . .	22	
	—	2,005

## Died:

Almshouse . . . . .	19	
House of Industry . . . . .	28	
House of Reformation . . . . .	1	
Truant School . . . . .	0	
	—	48

## Remaining in hospitals Jan. 1, 1892:

Almshouse . . . . .	17	
House of Industry . . . . .	86	
House of Reformation . . . . .	5	
Truant School . . . . .	7	
	—	115

Total . . . . . 2,162

Largest number in all hospitals at one time . . . . .	11
Smallest number in all hospitals at one time . . . . .	3
Daily average . . . . .	6

Deaths not reported in the above tables, one prisoner's child.

# DISEASES TREATED IN THE HOSPITALS OF ALL THE DEPARTMENTS.

*Classified according to the Nomenclature of Diseases, as published by the  
Royal College of Physicians of London.*

DISEASES.	In Hospital Jan. 1, 1891.	Admitted.	DISCHARGED.					In Hospital Jan. 1, 1892.
			Well.	Improved.	Unimproved.	Died.	Total.	
GENERAL DISEASES.								
A.								
Scarlet fever.....		1	1				1	
Typhoid fever.....		6	5			1	6	
Peritonitis.....		3	2			1	3	
Febricula.....	1	41	42				42	
Intermittent fever.....		3	2	1			3	
Erysipelas.....	3	7	10				10	
Anæmia.....		3		3			3	
Chronic malarial poisoning.....		8		8			8	
Influenza.....		140	105				105	35
B.								
Muscular rheumatism.....		12	10	2			12	
Articular rheumatism.....	1	33	26	4			30	4
“ “ (chronic).....		11		4	7		11	
Phthisis pulmonalis.....	5	36		6	26	3	35	6
Alcoholismus.....	5	317	320				320	2

DISEASES.	In Hospital Jan. 1, 1891.	Admitted.	DISCHARGED.					Total.	In Hospital Jan. 1, 1892.	
			Well.	Improved.	Unimproved.	Died.				
Chronic alcoholism . . . . .	...	9	...	9	...	...	9	...	...	
Delirium tremens . . . . .	2	185	163	...	...	16	179	...	...	
Scrofulosis . . . . .	...	2	...	2	...	...	2	...	...	
Observation . . . . .	4	38	40	...	...	...	40	...	...	
Malingering . . . . .	1	36	36	...	...	...	36	...	...	
Inanition . . . . .	...	1	...	...	...	1	1	...	...	
General debility . . . . .	8	82	50	27	...	1	78	...	...	
Senility . . . . .	2	2	...	...	2	2	4	...	...	
DISEASES OF NERVOUS SYSTEM.										
Paresis . . . . .	3	1	...	...	...	1	1	...	...	
Paralysis . . . . .	...	1	...	...	1	...	1	...	...	
Hysteria . . . . .	...	7	...	7	...	...	7	...	...	
Epilepsy . . . . .	...	47	...	2	44	...	46	...	...	
" (alcohol) . . . . .	...	8	...	8	...	...	8	...	...	
Insomnia . . . . .	...	6	...	6	...	...	6	...	...	
Neuralgia . . . . .	...	8	6	2	...	...	8	...	...	
" (facial) . . . . .	...	10	10	...	...	...	10	...	...	
" (intercostal) . . . . .	...	5	5	...	...	...	5	...	...	
Sciatica . . . . .	...	1	...	1	...	...	1	...	...	
Pleurodynia . . . . .	...	9	9	...	...	...	9	...	...	
Lumbago . . . . .	...	13	13	...	...	...	13	...	...	
Cephalagia . . . . .	...	2	2	...	...	...	2	...	...	
Megrain . . . . .	...	1	1	...	...	...	1	...	...	
Vertigo . . . . .	1	5	...	5	...	...	5	...	...	

DISEASES.	In Hospital Jan. 1, 1891.	Admitted.	DISCHARGED.					In Hospital Jan. 1, 1892.
			Well.	Improved.	Unimproved.	Died.	Total.	
DISEASES OF THE INTELLECT.								
Insanity .....		24	...	...	21	...	21	3
Mania (acute).....		4	...	...	3	1	4	...
Melancholia.....		6	...	...	6	...	6	...
Dementia.....	4	16	...	...	16	...	16	4
“ (senile).....	2	1	...	...	2	1	3	...
False hearing .....		3	...	...	3	...	3	...
Alcoholic insanity.....		5	4	1	...	...	5	...
General paralysis of the insane.....		4	...	...	4	...	4	...
DISEASES OF THE CIRCULATORY SYSTEM.								
Functional disease of the heart.....		4	2	2	...	...	4	...
Valvular “ “ “ .....		11	...	...	7	4	11	...
“ “ “ “ (aortic).....		1	...	...	1	...	1	...
“ “ “ “ (mitral) ...		4	...	...	4	...	4	...
“ “ fatty degen. heart.....		3	...	...	2	1	3	...
DISEASES OF THE RESPIRATORY SYSTEM.								
Hemoptysis .....		5	...	5	...	...	5	...
Bronchitis (acute).....	3	50	43	4	...	...	47	6
“ (chronic) .....		3	...	1	2	...	3	...
Asthma.....		23	...	22	...	...	22	1
Pneumonia.....	3	37	29	...	...	10	39	1
Pleurisy .....		2	2	...	...	...	2	...
Chronic catarrhal pneumonia .....		2	...	...	2	...	2	...
Laryngitis .....		1	...	...	...	...	1	...



DISEASES.	In Hospital Jan. 1, 1891.	Admitted.	DISCHARGED.				
			Well.	Improved.	Unimproved.	Died.	Total.
DISEASES OF THE FAUCES AND PALATE.							
Tonsillitis.....		25	23	...	...	...	23
“ (ulc.) .....	1	6	7	...	...	...	7
“ (foll.) .....		20	20	...	...	...	20
Pharyngitis.....		15	15	...	...	...	15
“ (ulc. syph.).....		3	...	3	...	...	3
DISEASES OF THE DIGESTIVE SYSTEM.							
Gastritis .....		2	1	...	...	1	2
Dyspepsia .....		3	...	3	...	...	3
Gastro-enteritis .....		1	1	...	...	...	1
Dysentery .....		5	5	...	...	...	5
Diarrhœa .....	2	49	51	...	...	...	51
“ (chronic).....		4	...	3	1	...	4
Constipation.....		10	9	...	...	...	9
Intestinal colic .....		13	13	...	...	...	13
Cholera morbus .....		43	43	...	...	...	43
Cholera infantum.....		3	3	...	...	...	3
Jaundice (catarrh).....		3	2	1	...	...	3
Indigestion.....		61	61	...	...	...	61
Cirrhosis of liver.....		2	...	...	...	2	2
DISEASES OF THE URINARY SYSTEM.							
Bright's disease (acute).....		1	...	1	...	...	1
“ “ (chronic).....	1	3	...	2	1	...	3
Cystitis .....		2	...	2	...	...	2

DISEASES.	In Hospital Jan. 1, 1891.	DISCHARGED.					In Hospital Jan. 1, 1891.
		Admitted.	Well.	Improved.	Unimproved.	Died.	
Incontinence urine.....		1	1				1
Retention urine.....		2	2				2
Diseases of women .....		4	4				4
Engorged breasts. ....		4	4				4
Antiversion .....		1	1				1
Retroversion .....		2		2			2
Metritis.....		2	2				2
Endometritis .....		4		2	2		4
Vaginitis (specific).....	1	39	30	10			40
Dysmenorrhœa .....		5	5				5
Menorrhagia .....		6	6				6
Metrorrhagia .....		4	4				4
Pregnancy .....		6		5			5
" (placenta prævia).....		1				1	1
Abortion.....		2	2				2
Ovaritis .....		3	3				3
DISEASE OF THE CUTANEOUS SYSTEM.							
Erythema.....		3	3				3
Psoriasis.....		4		4			4
Urticaria .....		2	2				2
Eczema.....		9		7	2		9
" (capitis) .....		2		2			2
Herpes circinatus.....		15	15				15
Perdiculi capitis .....		3	3				3

DISEASES.	In Hospital Jan. 1, 1891.	Admitted.	DISCHARGED.					
			Well.	Improved.	Unimproved.	Died.	Total.	
Perdiculi vest .....	...	1	1	...	...	...	1	...
“ pubis .....	...	50	50	...	...	...	...	50
Scabies .....	...	2	2	...	...	...	...	2
Surgical Diseases.								
VENEREAL DISEASES.								
Gonorrhœa .....	...	58	40	18	...	...	...	58
Balanitis .....	...	2	2	...	...	...	...	2
Phimosis .....	...	1	1	...	...	...	...	1
Paraphimosis .....	...	2	2	...	...	...	...	2
Bubo .....	...	8	5	3	...	...	...	8
Bubo and chancre .....	...	1	...	1	...	...	...	1
Chancre .....	...	10	4	6	...	...	...	10
Chancroid .....	1	8	6	1	...	...	...	7
Orchitis .....	...	2	1	1	...	...	...	2
Stricture of urethra (org.) .....	...	14	...	13	...	1	...	14
“ “ “ (spasm) .....	...	2	2	...	...	...	...	2
Syphilis .....	...	7	...	7	...	...	...	7
“ secondary .....	...	6	...	6	...	...	...	6
“ tertiary .....	2	17	...	7	7	...	...	14
Venereal warts .....	...	2	2	...	...	...	...	2
INJURIES.								
Burns .....	1	6	7	...	...	...	...	7
Frost-bite .....	1	...	1	...	...	...	...	1
Man-bite .....	...	3	3	...	...	...	...	3
Multiple injuries .....	1	9	10	...	...	...	...	10

DISEASES.	In Hospital Jan. 1, 1891.	Admitted.	DISCHARGED.					In Hospital Jan. 1, 1892.
			Well.	Improved.	Unimproved.	Died.	Total.	
Contusions.....	1	29	30				30	
"    of eye.....		14	14				14	
Incised wound of hand.....		2	2				2	
"    "    "    scalp.....		2	2				2	
"    "    "    face.....	1	2	3				3	
"    wounds.....		8	8				8	
Lacerated wounds.....		19	19				19	
"    "    of scalp.....	2	23	23				23	2
"    "    "    face.....		13	12				12	1
"    "    "    eyelid.....		5	5				5	
"    "    "    tongue.....		2	2				2	
"    "    "    ear.....		1	1				1	
"    "    "    wrist.....		3	3				3	
"    "    "    ankle.....		2	2				2	
Lacerated wound of leg.....		4	4				4	
"    "    "    hand.....		5	5				5	
Punctured wounds.....		3	3				3	
Sprain of wrist.....		3	3				3	
"    "    ankle.....		25	25				25	
"    "    knee.....		2	2				2	
"    "    shoulder.....		3	2				2	1
Dislocation of shoulder....		7	7				7	
"    "    thumb.....		1	1				1	
Fracture of clavicle.....	1	3	4				4	

DISEASES.	In Hospital Jan. 1, 1891.	Admitted.	DISCHARGED.					Total.	In Hospital Jan. 1, 1892.	
			Well.	Improved.	Unimproved.	Died.				
Fracture of humerus . . . . .		2	1					1		
“ “ radius (colle) . . . . .		2	2					2		
“ “ forearm. . . . .		3	3					3		
“ “ radius . . . . .		1	1					1		
“ “ metacarp. bone. . . . .		2	2					2		
“ “ finger. . . . .		3	3					3		
“ “ ribs. . . . .	1	3	3	1				4		
“ “ hip (old). . . . .	1				1			1		
“ “ leg (old). . . . .	1	5			6			6		
“ “ “ . . . . .		1						1		
“ “ fibula . . . . .		1	1					1		
“ “ toe . . . . .		1	1					1		
“ “ nose . . . . .		2		2				2		
“ “ base of skull . . . . .		1				1		1		
UNCLASSIFIED.										
Varicose veins . . . . .		3			3			3		
Necrosis tibia . . . . .		2			2			2		
Hemorrhoids. . . . .		13	3	10				13		
Fistula in ano. . . . .	1	1			2			2		
Prolapsus ani . . . . .		1		1				1		
Abscess . . . . .	1	13	14					14		
“ alveolar. . . . .		12	11					11		
“ palmar . . . . .		2	2					2		
“ cervical . . . . .		9	9					9		

DISEASES.	In Hospital Jan. 1, 1891.	Admitted.	DISCHARGED.					In Hospital Jan. 1, 1892.
			Well.	Improved.	Unimproved.	Died.	Total.	
Abscess axillary.....		8	8				8	
“ labial.....		2	2				2	
“ mastoid.....		2	2				2	
“ perineal ..		1	1				1	
Varicose ulcers... ..	1	14	5	8			13	2
Ulcers.....		15	6	8			14	1
Bed-sores.....		3		3			3	
Hernia inguinal ..		4			4		4	
“ “ (double).....		1			1		1	
“ femoral ..		2			2		2	
“ umbilical ..		2			2		2	
Carbuncle ..		5	4				4	1
Felon ..		7	6				6	1
Furuncle ..	1	1	2				2	
Ingrowing toe-nail.....		1		1			1	
Synovitis ..		11	5	5	1		11	
Amputation of leg (old).....		3			1		1	2
“ “ fingers....		2	1				1	1
“ “ toes (old)....		1						1
Epistaxis ..		8	3				3	
Cellulitis.....		13	12				12	1
DISEASES OF THE EYE.								
Conjunctivitis ..		14	12	2			14	12
Trichiasis.....		2		2			2	

DISEASES.	In Hospital Jan. 1, 1891.	Admitted.	DISCHARGED.				
			Well.	Improved.	Unimproved.	Died.	Total.
Corneal ulcer.....		1		1			1
Dislocation of cornea .....		1			1		1
Foreign body in cornea .....		6	6				6
Hordeolum .....		1	1				1
Strabismus .....		2			2		2
Iritis .....		5	4	1			5
Cataract .....		2			2		2
DISEASES OF THE EAR.							
Chronic inflammation middle ear .....		2			2		2
Otorrhœa .....		7	2	5			7
Totals.....	66	2324	1719	303	204	49	2275

NOTE.—Some cases not admitted to the hospitals are included in this classification which will account for the difference in the number of admissions between the above statistics and the preceding tables.

During the past year 1,892 inmates of the House of Industry have been admitted to the hospital, and have received medical treatment. Of this number 28 have died. Besides those admitted to the hospital, a great many of the inmates have received treatment for minor ailments at sick-call. There has been one birth—a male child. Sixty-two children of sentenced mothers have been admitted to the nursery. There has been one death in the House of Reformation. In February, Dr. D. S. Harkins, Assistant Port Physician, resigned, and was succeeded by Dr. R. E. Darrah. Dr. C. H. Cogswell, Port Physician, is still associated with me. Thanking you for the many courtesies extended me, I am,

Very respectfully,

THOMAS F. ROCHE,  
Resident Physician.

DEER ISLAND, BOSTON HARBOR, Jan. 1, 1892.

## CHAPLAIN'S REPORT.

DEER ISLAND, Dec. 31, 1891.

MR. JAMES R. GERRISH, *Superintendent of Deer Island Institutions:*

SIR: Herewith I have the honor of submitting my first annual report as the Chaplain and Superintendent of Schools and Director of Music, which institutions are under your charge. I came to this position one year ago, and the work in some respects was new to me; but your oversight and kindness have greatly helped me, and I find myself doing with interest the work committed to my charge.

The religious services have been held and conducted as usual on Sunday, and we trust with good effect, directing the thought of the worshipper to a higher and better life. Singing in divine service is performed by the boys of the Institution, and assisted by our efficient organist, Miss Clara W. Baker. Sunday morning we conduct a Sunday-school for the religious culture of the boys, which seems to us a good work, the boys taking great interest in it. At the request of the Commissioners, Rainsford's and Long Islands have been placed under our care, though in the past much religious work has been done on the two islands named by the chaplain of Deer Island. We hold Sunday services and other services when called, and through the week we make calls on the inmates who may need our service.

## LIBRARY.

The juvenile department is well supplied with books from the city library. Also, the hospitals and women's library of the three islands are well supplied with books, papers, and pamphlets, by donation from the Hospital Newspaper Society of Boston, Mrs. Grace Kuhn, president. We gratefully acknowledge these donations of good and abundant reading from the society, with a full supply of Christmas and New Year cards.

## SCHOOLS.

The annual examination of the schools took place June 23, under the direction of Dr. Otis K. Newell and Mr. Thomas H. Devlin, Commissioners. Reading, writing, and arith-



metic are the principal branches taught in the schools. A large majority of the boys remain here but a short time. This is thought advisable, and yet it sometimes happens that a boy goes out when he is doing his best work and a longer stay would be more helpful to him. We have four schools each supplied with a teacher—Mr. John A. Hickey, principal in the department of the House of Reformation, Mr. James T. Beavins, principal in the Truant department, Mr. Frank P. Fultin, assistant teacher in the House of Reformation, and Mr. Henry C. Twitchell, assistant teacher in the Truant department. We have at present one hundred and sixty-six (166) boys under good instruction, with faithful teachers, doing good work in their departments. I must express myself pleased with the industry and success of our teachers.

Vocal music is taught mostly out of school hours. All the boys assemble in the chapel once a week for instruction under the direction of the chaplain and Miss Clara W. Baker, organist.

We have made a change in our school geography, and put into the schools Warren's revised, containing the most recent changes and best things.

The following table shows the number and classification of pupils :

	Ref. Boys.	Truant.	Total.
Number in school . . . .	74	92	166
Can read generally . . . .	74	78	152
“ “ primary reader . . . .		14	14
Study geography . . . .	61	36	97
“ grammar . . . .	43	25	68
“ penmanship . . . .	74	92	166
“ history of the United States . .	43	30	73
“ mental arithmetic . . . .	74	56	130
“ written arithmetic . . . .	74	46	120
“ compound numbers . . . .	56	14	70
“ fractions . . . .	56	23	79
“ vocal music . . . .	74	92	166
Could neither read nor write when committed . . . .	11	11	22

For your courteous and helpful support, please accept my sincere thanks.

Very respectfully,

WILLIAM B. TOULMIN,  
*Chaplain and Superintendent of Schools and  
Director of Music.*

## REPORT OF THE SUPERINTENDENT OF THE BOSTON LUNATIC HOSPITAL.

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### *To the Commissioners of Public Institutions :*

GENTLEMEN: The year of 1891 has been an eventful one for the Boston Lunatic Hospital. Not only have we cared for the largest number of patients ever resident at one time, but for the first time since its opening in 1839, and its enlargement in 1846, has a building especially designed for its insane inmates been erected. The buildings at Austin Farm, taken for the insane in 1887, were built for a different class of inmates. The new structure now in process of erection there is intended for one hundred male patients, already carefully selected as quiet and suited to associated dormitory accommodation. Half of them, at least, are workers on the farm.

This new pavilion for men will not afford as expensive and luxurious quarters as the wards of the State lunatic hospitals or the City Hospital furnish. It is of wood, and will provide, at a cost of \$300 per bed, an asylum ward for one hundred patients, entirely independent of the main buildings, and complete in all its departments. Being the first step, as we believe, in a more humane policy on the part of the city towards its unfortunate insane citizens, we regard the new dormitory with great interest. It is hoped that suitable buildings will soon be erected within the city limits for all classes of the city insane, whether scattered in the distant State hospitals or improperly accommodated in the antiquated hospital at South Boston.

The year 1889 closed with 304 patients. In January, 1890, 60 female patients were transferred here, after the fire in the Worcester Asylum. These patients were of the worst class, being for the most part excitable and untidy elements. They have filled our female wing literally to overflowing, the surplus being provided for in an attic only intended for storage, and in the billiard room. The attic in question has forty beds almost touching each other, where forty of this class of patients sleep. This has made much extra labor for all concerned, especially the nurses in charge of this large dormitory. There is no bath-tub on the fourth

floor, and none could be provided there on account of diminished pressure in the water-supply. This has slowly failed for years, and affects chiefly the hot water. For a large part of each day no hot water can be obtained above the second story, and it has to be carried in pails by hand to the attic. Attempts have been made from time to time to remedy the state of things. Larger hot-water tanks have been put in connection with a larger main pipe has been made, and a few years ago five hundred feet or more of new pipe were carried underground around the building to supply the hot water boiler. It is now said this pipe is entirely insufficient for its purpose.

The attic patients have been obliged to spend the day in our two lower wards, each intended for only twenty-five patients. It was absolutely necessary to reserve one ward — the upper — for quiet and convalescent cases; consequently fifty-five or sixty of the worst class of patients have occupied each of our lower wards by day, made still worse by their close association. It is the relief to our female wing, promised by the pavilion at Austin Farm, that makes its speedy completion desirable. It has been thought best to have all the female patients at the farm under the same roof. The one hundred men now occupying a part of the present building will be transferred to the new ward, leaving one hundred beds to be filled by female patients from South Boston. It will be the first of May, however, before we can expect any relief in that direction.

Beginning the year with 399 patients, we ended it with 428. We have had about the usual number of admissions, viz., 144. The State hospitals all being excessively crowded we have been obliged to continue to receive patients in spite of our crowded condition. Emergency cases can never be refused, and we have had 32 of them. We have been obliged to take a larger number than usual of very sick, very excited, or very old patients, because of the risk in sending them to the State hospitals. We have also had two births the past year. Our death-rate has always been affected by the above cause, and this year we fear our percentage of recoveries has been diminished by it. I should be sorry to have to attribute the decrease to our overcrowded condition and yet nothing would seem so likely to produce such a result as the noise and confusion on the wards where all our recent cases must begin their treatment.

The percentage of recoveries in 1890, though less than our average, was above that of the State hospitals, being 28. In 1891 it was only 16.27 of the admissions, deducting the transferred cases, as usual. The percentage of deaths in

1890 was 9.33 on the whole number under treatment. In 1891 it was only 7 per cent. This is unusually low for us, but is high compared with that of the State hospitals.

By constant vigilance we have got through the year without serious accident, with one exception. An epileptic, under the influence of a sudden hallucination, plucked out an eye. No successful suicide has occurred, though scores of attempts have been made. Nasal-tube feeding, which usually implies attempted suicide by starvation, has been frequently in use. In one case it has been required continuously for a year, making a great tax upon the time of the medical staff. Small assaults and minor injuries have been of almost daily occurrence. Our crowded state has required a larger amount of seclusion and restraint than would be warranted under any other conditions. It would have required ten times as many single rooms as we have at our disposal to seclude all patients liable to injure others. Demented patients are like children, and resent suddenly and violently the interference or personal contact of other patients. Although the staff of nurses has been increased to our full capacity for sleeping-room, it would be impossible to prevent frequent personal encounters without one for each patient.

An overcrowded hospital reacts in many ways unfavorably upon the administration of it. The medical staff are largely occupied in keeping the peace, or in devising ways by which changes from ward to ward may be made with the least disturbance of other patients, or in finding room to put up another bed. Each change of condition, or each new patient, requires changing half a dozen others, so that no patient occupies the same room or bed a great while. These changes are as likely to occur at midnight as any other time.

Attendants become tired of the noise, confusion, and extra work unusual in other hospitals, and resign after a short term of service. On each ward two nurses sleep in one room, eight feet by twelve, considered only large enough for one patient. Others are crowded together in distant dormitories and attics. This state of things is not favorable to the obtaining or keeping of the best class of nurses. If we had room and leisure, and the ordinary comforts and conveniences afforded by most modern hospitals for the insane, we could establish a training-school for nurses. We cannot, however, indulge in the luxuries of hospital administration till our every-day necessities are more adequately met.

I saw at Prestwich, near Manchester, England, a year ago, at the County Asylum for pauper insane, a nurses' home as substantial and attractive as the one at the City Hospital,

Boston. This hospital at Prestwich might serve as an example for the city in many ways. It provides for about 2,500 insane of all classes, at a cost of \$2.00 per week. Its buildings are numerous and substantial, and built at a cost of about \$600 per bed. It has an annex for one thousand chronic insane, which is fitted up and furnished in a tasteful, comfortable, and even luxurious manner. It is the best pauper asylum in England, and is the best managed. With plenty of room and pleasant surroundings, with an ample dietary and conveniences for labor of all kinds, it is no wonder that restraint and seclusion are seldom used. The fitting up and furnishing of the Prestwich hospital and annex was largely the work of the insane mechanics and carpenters from Manchester who were resident there.

It is a disagreeable task to devote so much space in this report to the unpleasant features of our hospital experience. I should prefer to write of the more cheerful side of it, and of the compensations which exist even here. It seems to me important, however, that the public should at least be annually reminded of the deficiencies of this hospital. The relatives and friends of patients who visit it weekly, year after year, do know exactly how we are situated, and to their kindness and forbearance the city owes its immunity from frequent public complaint. It is only the prospect of some relief in the spring and the knowledge that your Board and the present city government are disposed to do everything possible to improve the condition of the city insane that makes the situation endurable.

The financial management of the hospital being entirely in the hands of your Board, I need only state its very satisfactory results. In 1890 the expenditures for the year were \$80,826.72; the income was \$11,070.57; the net cost per week was \$3.54. In 1891 the expenditures were \$85,309.76; the income, \$20,524.46; the net cost per week, \$2.97. The daily average in 1890 was 379; in 1891 it was 419. This increase will account for only a small part of the diminished cost per capita. The increased income and continued good management will account for the rest. It may be well to remark in this connection that our lack of proper accommodation alone prevents a much larger increase of income from citizens in moderate circumstances, and able to pay from \$5 to \$15 a week for board.

Last spring the city government appropriated, and Mayor Matthews approved a bill providing, the sum of \$30,000 for a new dormitory at Austin Farm. Detached buildings furnishing dormitory accommodation for the chronic insane had been built in several of the United States at the rate of \$300

per bed. It was hoped a building of brick for one hundred beds could be erected here for the above appropriation. Plans were drawn of the rooms desired for a two-story ward for one hundred men, detached from and independent of the main buildings. On conference with City Architect Wheelwright, it was found that the required accommodations could not be furnished in a brick building for the appropriation. He suggested a trial of the method of construction described many years ago by Mr. Edward Atkinson before the Suffolk District Medical Society. It had been used in mills, and Mr. Atkinson thought it might be adapted for insane and other hospitals. Its merits were economy, stability, and safety from fire. Mr. Wheelwright had used this method, with some modification of his own, for a stable, and approved of it.

A partial use of the method was finally decided upon. The new ward will have the plank construction in the lower story, and the ordinary method of frame buildings in the upper story. The following description is from a paper on "New Hospital Construction for the Public Institutions of Boston," by Otis K. Newell, M.D., Commissioner of Public Institutions, in the Boston Medical and Surgical Journal for December 10, 1891. The article has excellent drawings of the Cottage Hospital at Long Island, and of the Dormitory at Austin Farm, furnished by City Architect Wheelwright.

"The whole of the first floor is of 'mill construction ;' which means that large hard-pine timbers (10 inches by 14 inches) spaced about 10 feet apart are used, and these are covered with a hard-pine under floor, 3 inches thick, so that it would take many hours for a fire to burn through from the basement.

"The first story is constructed of 3-inch hard-pine planks standing upright, side by side, splined and grooved, and capped with a hard-pine plate on which rest the second-floor timbers. On the outside and inside of this plank wall are nailed the  $\frac{3}{4}$ -inch furring strips, and on these the laths for the plaster, which will be of lime for inside work, and cement for the outside. By this method of construction the exterior walls have no passages or flues from the first to the second floor for vermin or fire, as they are practically solid walls, and will also prevent all the cold winds of winter from getting through, thereby assuring a warm building.

"The building will be finished throughout in cypress, and all the woodwork is of the plainest, having no deep mouldings or ledges for the accumulation of dust. The exterior of the building is to be of cement on wire laths, and divided into panels, as seen in the old English open timber work, with a pitch roof covered with cypress shingles."



The new dormitory is 153 feet long by 36 feet wide, with a wing in the rear of the centre 31 by 45 feet. The basement is high and well lighted by windows 5 feet in height. Its walls are of Roxbury stone taken from an old wall on the grounds. The partitions in the basement are of brick. At one end is a smoking and lounging room for the men who work on the farm, with a lavatory, and store-room for their clothing. At the other end is a work-room 36 feet square for repairs to furniture, mattress-making, etc. Between these are the coal-bins and boiler-room. In the basement of the wing are store-rooms for provisions, and range, coal, and a lift to the kitchen above.

The main entrance has a piazza 10 by 30 feet, with an overhanging second story. To the left is a reception and day-room, and beyond another day-room 35 by 38 feet, with bath-room and lavatory. These rooms are high-studded and, like all the others, lighted by numerous windows from floor to ceiling. There are no window bars or gratings, the sashes being checked to open only six inches. The day-rooms, dormitories, and dining-rooms are to be ventilated by means of fireplaces. The former will be furnished with ash-framed settees, arm-chairs, centre-tables, bookcase, organ, clock, pictures, etc. On the right of the entrance are seven rooms for the medical interne, supervisor, and attendants. There is also on this floor a dormitory for five farm attendants. The dining-room is 18 by 71 feet, and opens by a slide into a serving-room which connects with the kitchen.

The second story of the main building is divided transversely into three dormitories for one hundred beds, ventilated by four fireplaces and a large opening connecting with a cupola over the centre of the building. Three staircases afford ample means of exit in case of fire. Single rooms over the porch will accommodate an outside and an inside night-watchman and a day-nurse. In the wing are ample bath-rooms and lavatories connecting with the dormitories, store-rooms, sick-rooms, and three strong-rooms for excitable patients.

The excavation for this large building, with the necessary grading and digging of trenches for pipes, was largely the work of patients. Besides the ordinary farm-work, ditching of the meadow, and digging for the basement of the new dormitory, a new avenue many hundreds of feet long was made. Both farm-hands and patients are to be credited this year with a large amount of extra work, much of it of a laborious kind, on account of the hardness of the gravelly clay underlying the farm. Mr. White, the farmer, while

carrying on this large farm in a most creditable manner, also had charge of this new and extra work, and personally did as much of it as any one. The list of farm products in the appendix will show the results of his more legitimate labors.

In pursuance of the plan of making Austin Farm an asylum for the quiet and chronic insane, three more buildings for 100 beds each — two for men and one for women — *must* be built. We could then accommodate 600 there, or about half the city insane. It would be more economical on some accounts if this were done this year and the asylum completed. The heating of the new dormitory and of all subsequent buildings could then be provided for by a new and central boiler-house. The inadequate and dangerous method of lighting by gasolene could then be replaced by an electrical plant furnishing a safer and more economical light. Power could be introduced into the laundry also at a great saving of labor. A large building centrally situated should be built as a dining-room for 600 patients. It could also be used as an amusement hall and for religious services. It should have a large kitchen in its basement, or in a wing at the rear, and be connected by corridors, if desired, with all the dormitories. By this plan kitchens and dining-rooms in the present buildings could be changed to day-rooms and dormitories, and the accommodations largely increased. This would allow of diminished cost in the construction of the three new dormitories. Boiler-rooms would no longer be required, and the proposed rather doubtful method of heating by separate boilers with automatic attachment be given up. Economy of management would be favored by a central boiler-house, as well as safety from fire.

A still more important problem, however, is the question of providing for the other 600 of the city insane, including those at South Boston. The duty of the city is plain to this extent, viz., the purchase of 75 or 100 acres of land in the suburban part of the city, as near Austin Farm as land can be found. The interchange of patients between hospital and asylum would be frequent, and convenience of administration would make such proximity very desirable in every way. Land being obtained, buildings of brick, two stories in height, varying in size and design according to their occupancy, should be constructed. An administration building, with two buildings for acute cases, — one for each sex, — should first be built. These should have accommodations of the most approved and modern kind for the proper treatment of at least 200 recent cases. It should be a hospital in every sense of the term. It might have reception and observation



wards, with an infirmary on each side, and to it should be sent all recent cases as they come from the courts, many of them to be speedily assigned to the asylum at Austin Farm. to the detached excited wards when built, or any other part of the hospital or asylum.

As soon as possible the building at South Boston should be discontinued as a hospital. It could not be kept up economically even as an emergency hospital a great while. If not needed as part of the House of Correction, it had better be sold, with its ten acres of land, to offset the cost of the new hospital. It must, of course, be used until the administration building and part of the new hospital are ready for occupancy, but it should then be abandoned to other use. If used as a hospital for the insane, the attics would have to be given up, and it would then accommodate only 150 patients. A plant as valuable as this is ought to provide for twice that number, and would, if put on the market.

To fit this building for continued use by the insane certain expensive alterations would be required. The floors are nearly all of soft pine laid fifty years ago. It is very rough, and dangerous on account of splinters. It is absorbent and impossible to keep clean and dry. These should all be relaid in hard pine. The window-frames and sashes, after an equally long service, are worn out, and incapable of repair. They let in a large amount of cold, and should be generally renewed. Half the sleeping-rooms only are directly heated, and patients in seclusion, and those too demented to keep properly covered, may suffer from cold. None of the sleeping-rooms, bath-rooms, or lavatories are directly ventilated, but depend on the general ventilation of the corridor by means of a transom. This brings all offensive odors into the day-rooms. The water-supply, spoken of elsewhere, should be improved, and the sewer diverted from the flats in the rear to the main sewer on First street.

When these expensive changes had been made the building would only be fit for use by the quiet and chronic class of insane, and they can be cared for much more cheaply at Austin Farm. This building could never be fitted for use by the excited, noisy, untidy insane. Every sound in the lower wards rises through the ventilating shaft in winter, or by the open windows in summer, to the wards above. The proportion of single rooms is too small for this class of patients also, three-fourths of our accommodation being in large dormitories. It would not do as an infirmary, for similar reasons; nor for the acute and recent cases, on account of an entire lack of facilities for classification. A small hospital for insane needs as many wards as a large one. While the State

hospitals can make twelve or fifteen classes of each sex, we can make only three, and they are so closely associated in one wing as to be practically one. We cannot send our excited cases to a distant ward and our sick to an infirmary, our epileptic to one ward and our melancholy and suicidal to another. Our convalescents and our acute cases have to occupy the same ward and often the same dormitory.

Our location at South Boston, once desirable and pleasant on account of the country air and the view of the harbor, has become very undesirable. The flats have become noxious from continued flow of sewage and a gradual filling up with mud. On one side we have the continuous noise of an iron shipyard not fifty feet away. A cruiser and half a dozen iron vessels have been built there in the last two years. The old almshouse-building is a machine-shop for boiler-work. A little further off are chimneys pouring out smoke from soft-coal fires and from kerosene furnaces, filling the whole hospital with dust, grime, and bad odors. The prevailing wind of summer brings us other odors still more noxious or disgusting.

On the other side our female patients look down into the rear yard of the House of Correction not twenty feet away. They are so near that it is no wonder they frequently take up and retain the delusion that they also are prisoners in that institution. Many a time I have known patients on admission to at once assume that they have been sent to prison for some crime, the propinquity of a penal institution and the strong walls and heavy bars of this old-fashioned hospital helping to confirm their delusion. Fifty years ago the locating of an insane hospital between the House of Correction and the Almshouse was considered an appropriate thing: now, the slightest connection, either by proximity or associated management, is to be deprecated. The insane are a class by themselves, and have their own peculiar requirements and their own standard of living. They are greatly affected by their surroundings, even the most demented of them. Every hospital or asylum for the insane should be located in the country, remote from and independent of all other institutions, whether pauper or penal. The above considerations, it seems to me, forbid the use of this building for any class of the insane.

Our entertainments were modified somewhat the past year by the crowded state of the female wing, and the large number of seriously sick or excited patients on the female side. The grip, also, which attacked patients and nurses on that side by preference about Christmas time, would have made our usual New Year's party a physical impossibility. A

strawberry party was given here June 17, to which patients from the farm were invited. They also participated in the usual harbor-excursions during the summer. Several small dancing-parties, with simple refreshments, were given on the male side here and at the farm. The holidays were observed by giving the patients special dinners, and many of them attended entertainments in the House of Correction chapel, by invitation of Col. Whiton. On Christmas evening Mr. S. Milton Chase gave us an entertainment of magic in the chapel, which had been painted and decorated with evergreen for the occasion. Mr. Harry Bryant, humorist, at the same time amused the patients at Austin Farm.

Mr. Prang sent us his large annual donation of art reproductions for framing, a large book of sample cards for the parlour table, and several hundred cards for distribution at Christmas. A similar supply was sent to Austin Farm. The Hospital Newspaper Society has also sent a large quantity of books, periodicals, and cards. Mr. C. F. Adams, Mrs. Horatio Bigelow, and Miss Edith Crehore have sent us periodicals and papers, as usual. We have also received, free of charge, "Zion's Herald," "Our Dumb Animals," and "The Budget," a paper printed by the boys at Deer Island.

We are indebted to Mrs. Flanders, Mrs. Partridge, Mrs. Osborne, Miss Powell, Miss Hammond, Dr. W. E. Stebbins, and John Joy for assistance at our entertainments. Also to the "In His Name Club," of All Souls Church, for a dramatic entertainment at Austin Farm.

I take pleasure in again acknowledging the long-continued and faithful services of our chaplain and organist, and of the clergymen from the Gate of Heaven Church, who are prompt in answering our frequent calls upon them to attend the sick and dying. Also of the medical staff and other officers of the hospital, who, by their long service and familiarity with their duties, render my task an easier one. Allow me also to thank your Board for its constant interest in the welfare of the hospital, for a prompt response to all our daily requirements, and for much personal courtesy.

Very respectfully,

THEO. W. FISHER.

## FARM PRODUCTS AT AUSTIN FARM.

Apples . . . . .	120	bushels.
Beans, string . . . . .	54	"
Beans, shell . . . . .	44½	"
Beets . . . . .	213	"
Beets, small . . . . .	53	bunches.
Beef . . . . .	2,056	lbs.
Cabbage . . . . .	5,529	heads.
Calves raised . . . . .	3	
Calves sold . . . . .	10	
Carrots . . . . .	129	bushels.
Celery . . . . .	1,186	heads.
Corn, sweet . . . . .	758	dozen.
Cucumbers . . . . .	2,330	"
Cucumbers for pickles . . . . .	3½	bushels.
Eggs . . . . .	205	dozen.
Ensilage and green fodder . . . . .	180	tons.
Fruits, small . . . . .	700	boxes.
Grapes . . . . .	31	lbs.
Hay, English . . . . .	24	tons.
Hay, English, bought standing . . . . .	35	"
Hay, meadow . . . . .	14	"
Hay, meadow, bought standing . . . . .	3	"
Ice . . . . .	225	"
Lettuce . . . . .	3,527	heads.
Mangel-wurzel . . . . .	1,250	bushels.
Manure . . . . .	200	cords.
Melons . . . . .	155	
Milk . . . . .	9,350	cans.
Onions . . . . .	170	bushels.
Onions, small . . . . .	493	bunches.
Parsnips . . . . .	13	bushels.
Pears . . . . .	58	"
Peas, green . . . . .	60	"
Pork, dressed . . . . .	2,230	lbs.
Poultry, dressed . . . . .	52½	"
Potatoes . . . . .	150	bushels.
Radishes . . . . .	2,656	bunches.
Rhubarb . . . . .	557	lbs.
Rye . . . . .	15	bushels.
Rye straw . . . . .	1,800	lbs.
Squash . . . . .	5,350	"
Spinach . . . . .	52	bushels.
Swiss greens . . . . .	90	"
Tomatoes . . . . .	110	"
Turnips . . . . .	173	"

## 1. GENERAL STATISTICS FOR THE YEAR.

	Males.	Females.	Total
Patients in Hospital Dec. 31, 1890.....	186	218	394
Admitted within the year.....	71	73	144
Emergency .....	17	15	32
Voluntary .....	2	1	3
Committed.....	49	57	106
Transferred from other hospitals.....	3	.....	.....
Whole number of cases.....	257	286	543
Discharged within the year.....	57	58	115
Emergency cases transferred ... ..	2	10	12
Recovered .....	8	13	21
Much improved .....	15	9	24
Improved.....	2	2	4
Not improved .....	8	8	16
Deaths .....	22	16	38
Patients remaining in Hospital Dec. 31, 1891 .....	200	228	428
Patients remaining at South Boston ....	100	140	240
"    "    " Austin Farm .....	100	88	188
Supported as city patients.....			
"    "    private patients.....			
Number of different persons .....	254	285	539
"    "    "    "    admitted.....	70	72	142
"    "    "    "    recovered....	8	13	21
Daily average.....	195.08	223.76	418.84
<sup>1</sup> Percentage of recoveries.....	12.12	20.63	16.25

<sup>1</sup> Excluding emergency cases transferred.

## 2. MONTHLY ADMISSIONS, DISCHARGES, AND AVERAGES.

Months.	ADMISSIONS.			DISCHARGES.			DEATHS.			DAILY AVERAGE OF PATIENTS IN THE HOUSE.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
January .....	5	6	11	6	2	8	.....	4	4	188.40	218.00	396.40
February .....	5	11	16	2	4	6	2	2	4	184.25	217.75	402.00
March .....	5	4	9	.....	1	1	3	.....	3	187.75	220.25	408.00
April .....	6	6	12	.....	6	6	2	.....	2	190.80	220.60	411.40
May .....	7	3	10	2	4	6	..	2	2	195.75	219.00	414.75
June .....	6	6	12	2	1	3	2	2	4	200.00	230.00	420.00
July .....	5	5	10	1	2	3	1	1	2	201.00	222.80	423.80
August .....	7	9	16	8	6	14	1	.....	1	200.00	226.25	426.25
September .....	4	10	14	3	2	5	4	1	5	197.50	238.75	426.25
October .....	7	4	11	...	2	2	2	3	5	201.00	232.80	433.80
November .....	8	7	15	6	5	11	4	.....	4	200.50	231.75	432.25
December .....	6	2	8	5	7	12	1	1	2	199.00	232.20	431.20
Total of cases .....	71	73	144	35	42	77	22	16	38	.....	.....	.....
Total of persons .....	70	72	142	35	42	77	22	16	38	.....	.....	.....
Daily average .....				.....	.....	.....	.....	.....	.....	195.08	223.76	418.84

## 3. RECEIVED ON FIRST AND SUBSEQUENT ADMISSIONS.

NUMBER OF THE ADMISSION.	CASES ADMITTED.			TIMES PREVIOUSLY RECOVERED.		
	Male.	Female.	Total.	Male.	Female.	Total.
First.....	59	65	124	.....	.....	.....
Second.....	8	4	12	3	2	.....
Third.....	2	3	5	1	6	.....
Fourth.....	1	.....	1	.....	.....	.....
Sixth.....	.....	1	1	.....	5	.....
Eighth.....	1	.....	1	3	.....	.....
Total of cases.....	71	73	144	7	13	.....
Total of persons.....	70	72	142	5	6	.....

## 4. RELATIONS TO HOSPITALS OF PERSONS ADMITTED.

HOSPITAL RELATIONS.	Males.	Females.	Total.
Never before in any hospital for insane.....	52	59	.....
Former inmates of this hospital only.....	9	8	.....
“ “ “ other hospitals only.....	7	5	.....
“ “ “ this and other hospitals.....	2	.....	.....
Total of persons.....	70	72	.....

## 5. PARENTAGE OF PERSONS ADMITTED.

PLACES.	MALE.		FEMALE.		TOTAL.	
	Father.	Mother.	Father.	Mother.	Father.	Mother.
Maine .....	4	2	3	6	7	8
New Hampshire ....	2	2	1	1	3	3
Vermont. ....	1	1	.....	.....	1	1
Massachusetts.....	13	13	10	6	23	19
Rhode Island .....	1	1	.....	1	1	2
Connecticut... ..	.....	1	.....	.....	.....	1
New York .....	1	1	.....	.....	1	1
Pennsylvania ....	1	.....	.....	.....	1	.....
Virginia .....	1	.....	.....	.....	1	.....
Alabama.....	.....	1	.....	.....	.....	1
Canada .....	1	1	4	2	5	3
Newfoundland ....	1	.....	.....	.....	1	.....
England .....	6	4	5	5	11	9
Ireland .....	32	37	42	44	74	81
France .....	.....	.....	1	1	1	1
Germany .....	2	1	3	3	5	4
Austria .....	.....	.....	1	1	1	1
Russia.....	1	1	1	1	2	2
Unknown .....	3	4	1	1	4	5
Total.....	70	70	72	72	142	142



## 6. RESIDENCE OF PERSONS ADMITTED.

PLACES.	Males.	Females.	Total.
Suffolk County .....	68	70	138
Middlesex County .....	1	.....	1
New York .....	.....	1	1
Wyoming .....	.....	1	1
Texas .....	1	.....	1
Total .....	70	72	142

## 7. CIVIL CONDITION OF PERSONS ADMITTED.

No. OF THE ADMISSION.	UNMARRIED.			MARRIED.			WIDOWED.			DIVORCED.			TOTAL.	
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.
First .....	30	23	53	24	28	52	4	14	18	1	...	1	59	65
Second .....	7	2	9	1	1	2	.....	.....	.....	.....	.....	.....	8	3
Third .....	1	...	1	...	3	3	.....	.....	.....	.....	.....	.....	1	3
Fourth .....	1	...	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	...
Sixth .....	...	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	1
Eighth .....	.....	.....	.....	1	...	1	.....	.....	.....	.....	.....	.....	1	...
Total .....	39	26	65	26	32	58	4	14	18	1	...	1	70	72

## 8. OCCUPATION OF PERSONS ADMITTED.

Males.		Males.	
Bakers .....	2	Note-broker .....	1
Bar-tender .....	1	Painters .....	2
Blacksmith .....	1	Pattern-maker .....	1
Book-keeper .....	1	Pedler .....	1
Cabinet-maker .....	1	Piano-polisher .....	1
Carpenters .....	2	Police sergeant .....	1
Clerks .....	7	Printer .....	1
Coal-dealer .....	1	Ranch-owner .....	1
Commission-merchant .....	1	Roofer .....	1
Draughtsman .....	1	Sail-maker .....	1
Expressmen .....	2	Salesman .....	1
Fireman .....	1	School-master .....	1
Florist .....	1	Seaman .....	1
Gaw-fitter .....	1	Shoemakers .....	2
Grocer .....	1	Stable-keeper .....	1
Hotel-keeper .....	1	Stone-mason .....	1
Iron-moulder .....	1	Teamsters .....	3
Iron-worker .....	1	Tobacco-dealer .....	1
Laborers .....	6	Wood-carver .....	1
Leather-worker .....	1	No occupation .....	8
Liquor-dealer .....	1	Unknown .....	1
Lithographer .....	1		
Musician .....	1	Total .....	70
Newsboy .....	1		

Females.		Females.	
Clerks .....	2	Rubber-coat cementer .....	1
Cloak-maker .....	1	School-teacher .....	1
Cook .....	1	Seamstress .....	1
Domestics .....	8	Tailoress .....	1
Dressmakers .....	2	Worsted-maker .....	1
Housekeeper .....	1	No occupation .....	19
Housewives .....	31		
Laundress .....	1	Total .....	72
Nurse-girl .....	1		

## 9. PROBABLE CAUSES OF DISEASE IN PERSONS ADMITTED

CAUSES.	PATIENTS ADMITTED.			PREVIOUS ATTACKS.			HEREDITARY PRE- DISPOSITION.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
<b>1. PHYSICAL:</b>									
Apoplexy.....	4	2	6				3		
Chorea .....	1		1				1		
Epilepsy .....	5	1	6						
Ill health.....	3	6	9	1		1	2	1	
Injury to head .....	2	2	4						
"    " knee .....		1	1						
"    " nose .....		1	1						
Intemperance .....	10	2	12	1		1	2	1	
Loss of eye.....		1	1						
Masturbation .....	1		1	1		1			
Menopause .....		4	4		1	1		1	
Opium habit .....	1	2	3					1	
Overwork .....	9	4	13	2	2	4		2	
Phthisis .....		1	1						
Puerperal .....		5	5		1	1			
Senility .....	2	7	9		1	1			
Skin disease .....		1	1						
Sunstroke .....	1		1						
Syphilis, hereditary.....		1	1						
<b>2. MENTAL:</b>									
Bereavement .....		1	1					1	
Financial trouble.....	3		3						
Fright .....		1	1						
Heredity .....	5	11	16				5	11	16
Worry .....	1		1				1		
Unknown .....	22	18	40	1	4	5	4	5	9
<b>Totals .....</b>	<b>70</b>	<b>72</b>	<b>142</b>	<b>6</b>	<b>9</b>	<b>15</b>	<b>18</b>	<b>23</b>	<b>41</b>

## 10. RECORD OF CASES ADMITTED WITHIN THE YEAR.

PATIENTS.	Male.	Female.	Total.
Admitted.....	71	73	144
Discharged, recovered .....	6	6	12
"    much improved.....	5	5	10
"    improved .....	1	2	3
"    not improved.....	3	6	9
Emergency cases transferred.....	2	9	11
Died .....	8	7	15
Remaining Dec. 31, 1891 .....	46	38	84
Number likely to recover.....	5	11	16
"    "    " improve.....	4	7	11

## 11. AGES OF INSANE AT FIRST ATTACK, ADMISSION, AND DEATH.

AGES.	PERSONS FIRST ADMITTED TO ANY HOSPITAL.				PERSONS DIED.				
	At First Attack.			When Admitted.	At First Attack.			At Time of Death.	
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Congenital .....	1	.....	1	.....	.....	.....	.....	.....	.....
15 years and less.....	4	3	7	1	1	2	1	1	2
From 15 to 20 years....	3	3	6	3	3	6	.....	.....	.....
" 20 to 25 " .....	3	4	7	4	4	8	2	2	4
" 25 to 30 " .....	5	5	10	4	7	11	2	1	3
" 30 to 35 " .....	5	9	14	7	9	16	2	1	3
" 35 to 40 " .....	8	3	11	10	3	13	3	1	4
" 40 to 50 " .....	5	13	18	5	11	16	2	2	4
" 50 to 60 " .....	8	8	16	5	7	12	3	5	8
" 60 to 70 " .....	8	7	15	9	7	16	5	2	7
" 70 to 80 " .....	1	3	4	3	6	9	1	3	4
Over 80 years.....	1	1	2	1	1	2	1	1	2
Unknown .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Not insane .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total of persons.....	52	59	111	52	59	111	23	16	39
Mean ages.....	41.08	43.26	42.14	43.65	45.37	44.56	46.25	60.40	55.98

## 12. REPORTED DURATION OF DISEASE BEFORE LAST ADMISSION.

PREVIOUS DURATION.	FIRST ADMISSION TO ANY HOSPITAL.			ALL OTHER ADMISSIONS.			TOTAL.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Congenital .....	1	.....	1	.....	.....	.....	1	.....	1
Under 1 month . . .	4	7	11	2	3	5	6	10	16
From 1 to 3 months..	11	10	21	1	3	4	12	13	25
“ 3 to 6 months..	3	8	11	.....	.....	.....	3	8	11
“ 6 to 12 months..	9	8	17	1	1	2	10	9	19
“ 1 to 2 years...	6	10	16	3	2	5	9	12	21
“ 2 to 5 years...	8	4	12	5	3	8	13	7	20
“ 5 to 10 years ..	7	9	16	2	1	3	9	10	19
“ 10 to 20 years..	3	2	5	5	1	6	8	3	11
Over 20 years .....	.....	1	1	.....	.....	.....	.....	1	1
Unknown .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Not insane .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total of cases ....	52	59	111	19	14	33	71	73	144
Total of persons ..	52	59	111	18	13	31	70	72	142
Average in years..	3.22	2 17	2.66	4.90	2.05	3.69	3.67	2.15	2.90



[illegible]



## 14. DISCHARGES CLASSIFIED BY ADMISSION AND RESULT.

	RECOVERED.			MUCH IMPROVED.			IMPROVED.			NOT IMPROVED.			EMERGENCY CASES TRANSFERRED.			DIED.			TOTAL.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
First.....	5	9	14	9	7	16	2	2	4	7	8	15	2	10	12	17	11	28	42	47	89
Second .....	3	2	5	5	1	6	.....	.....	.....	1	.....	1	.....	.....	.....	4	5	9	13	8	21
Third .....	.....	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1	1	2	3
Sixth .....	.....	.....	.....	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1
Seventh .....	.....	.....	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1
Total of cases .....	8	13	21	15	9	24	2	2	4	8	8	16	2	10	12	22	16	38	57	58	115
Total of persons .....	8	13	21	15	9	24	2	2	4	8	8	16	2	10	12	22	16	38	57	58	115

\* NUMBER OF THE ADMISSION.

## 15. CAUSES OF DEATH.

CAUSES.	Male.	Female.	Total.
<i>Nervous system :</i>			
Exhaustion from acute mania .....	2	1	3
“ “ chronic mania.....		1	1
“ “ senile insanity .....	3	6	9
“ “ secondary dementia .....		1	1
“ “ post-paralytic insanity .....		1	1
General paralysis .....	7	2	9
Imbecility and cerebral atrophy.....		1	1
<i>Respiratory system :</i>			
Phthisis pulmonalis.....	3	1	4
Bronchitis .....	1		1
<i>Circulatory system :</i>			
Apoplexy .....	1		1
Heart disease .....	3	1	4
<i>General :</i>			
Septicæmia .....		1	1
General tuberculosis ...	1		1
Old age.....	1		1
<b>Total.....</b>	<b>22</b>	<b>16</b>	<b>38</b>

## 16. RECOVERIES CLASSIFIED BY DURATION OF DISEASE AND OF TREATMENT.

PERIOD.	LAST ATTACK.						ALL ATTACKS.					
	Duration before Admission.			Hospital Residence.			Whole Duration from the Attack.			Whole known Period of Mental Disease.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Congenital .....	1	3	4	.....	.....	.....	.....	.....	.....	.....	.....	.....
Under 1 month .....	3	2	5	2	1	3	1	1	2	2	1	3
From 1 to 3 months ..	.....	5	5	3	4	7	1	3	4	2	2	4
" 3 to 6 " ..	3	.....	3	1	3	4	4	4	8	1	3	4
" 6 to 12 " ..	.....	1	1	.....	3	3	.....	1	1	2	1	3
" 1 to 2 years .....	.....	.....	.....	1	2	3	1	3	4	1	1	2
" 2 to 5 " ..	.....	.....	.....	.....	1	1	.....	1	1	2	1	3
" 5 to 10 " ..	1	1	2	1	.....	1	1	1	2	1	1	2
" 10 to 20 " ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Over 20 years .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Unknown .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total .....	8	13	21	8	13	21	8	13	21	8	13	21
Average of known cases (in months) .....	14.72	17.16	16.23	16.11	11.53	13.27	30.83	28.69	29.50	34.20	32.30	33.03
										19.10	16.35	17.40

## 17. DEATHS CLASSIFIED BY DURATION OF DISEASE AND TREATMENT.

Period.	LAST ATTACK.						ALL ATTACKS.					
	Duration before Admission.			Hospital Residence.			Whole Duration from the Attack.			Whole known Period of Mental Disease.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Congenital .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Under 1 month .....	4	3	7	4	2	6	.....	.....	.....	.....	.....	.....
From 1 to 3 months ..	2	1	3	2	3	5	.....	.....	.....	4	2	6
" 3 to 6 " ..	2	2	4	2	2	4	1	.....	1	2	3	5
" 6 to 12 " ..	2	2	4	4	2	6	1	1	2	2	2	4
" 1 to 2 years .....	5	3	8	3	1	4	2	1	3	3	1	4
" 2 to 5 " .....	6	1	7	4	6	10	4	8	12	2	.....	2
" 5 to 10 " .....	2	2	4	.....	.....	.....	8	4	12	5	6	11
" 10 to 20 " .....	.....	4	4	1	.....	1	2	3	5	.....	.....	.....
Over 20 years .....	1	.....	1	2	.....	2	.....	.....	.....	2	2	4
Unknown .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	2
Total .....	22	16	38	22	16	38	22	16	38	22	16	38
Average of known cases (in months) .....	31.74	56.07	41.99	46.08	17.38	34.50	77.92	73.45	76.07	79.60	73.44	77.01
										52.02	35.71	45.15

18. ANNUAL ADMISSIONS SINCE THE OPENING OF THE HOSPITAL, WITH DISCHARGES AND DEATHS WITHIN THE PAST YEAR, AND THE NUMBER OF EACH YEAR'S ADMISSIONS REMAINING DEC. 31, 1891.

YEARS ENDING APRIL 30.	NEW CASES.										READMITTED CASES.										Remaining of each Year's Ad- missions, Dec. 31, 1891.			
	ADMITTED.					DISCHARGED AND DIED IN 1891.					ADMITTED.					DISCHARGED AND DIED IN 1891.								
	Trans- ferred.		Recov- ered.		Total.	Much Im- proved.		Im- proved.		Total.	Recov- ered.		Much Im- proved.		Im- proved.		Total.	Not Im- proved.		Total.		Died.		
	Males.	Females.	Males.	Females.		Males.	Females.	Males.	Females.		Males.	Females.	Males.	Females.	Males.	Females.		Males.	Females.				Males.	Females.
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.		Total.	Males.	Females.
1840..	48	48	96	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1841..	31	19	50	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1842..	16	20	36	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1843..	33	23	56	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1844..	14	13	27	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1845..	20	7	27	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1846..	16	12	28	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1847..	28	25	53	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1848..	27	43	70	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1849..	35	40	75	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1850..	28	42	70	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1851..	30	38	68	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1852..	40	35	75	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1853..	38	10	48	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1854..	35	28	63	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1855..	32	35	67	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1856..	54	45	99	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

[illegible]

**This and following years end Dec. 31.**

Eight months, ending Dec. 31, 1885.

# 19. RELAPSED CASES ADMITTED IN EACH YEAR AND DIED CHARGED IN 1891.

YEARS ENDING APRIL 30.	CASES PREVIOUSLY RECOVERED IN THIS HOSPITAL.																								Remain- ing D. 31, 1891.
	ADMITTED.			DISCHARGED AND DIED IN 1891.																					
				Recov'd.			M'ch imp.			Improv'd			Not imp.			Died.									
				M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.				
1840.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1841.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1842.....	...	1	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1843.....	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1844.....	...	...	4	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1845.....	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1846.....	...	2	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1847.....	...	2	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1848.....	...	2	1	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1849.....	...	1	2	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1850.....	...	1	8	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1851.....	...	2	1	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1852.....	...	1	2	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1853.....	...	2	2	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1854.....	...	3	8	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1855.....	...	2	8	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1856.....	...	5	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1857.....	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1858.....	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1859.....	...	3	3	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1860.....	...	8	5	13	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1861.....	...	9	8	17	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1862.....	...	12	4	16	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1863.....	...	7	8	10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1864.....	...	5	2	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1865.....	...	4	1	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1866.....	...	7	2	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1867.....	...	6	2	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1868.....	...	3	4	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1869.....	...	4	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1870.....	...	5	2	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1871.....	...	1	8	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1872.....	...	4	3	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1873.....	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1874.....	...	...	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1875.....	...	3	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1876.....	...	5	4	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1877.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1878.....	...	1	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1879.....	...	3	2	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Carried forward	117	75	192	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1

RELAPSED CASES, ETC. — *Concluded.*

YEARS ENDING APRIL 30.	CASES PREVIOUSLY RECOVERED IN THIS HOSPITAL.																				
	ADMITTED.			DISCHARGED AND DIED IN 1891.															Remain- ing Dec. 31, 1891.		
				Recov'd.					M'ch imp			Improv'd			Not imp.			Died.			
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
<i>B't forward</i> .....	117	75	192	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	1
1880.....	1	1	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1881.....	1	3	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.
1882.....	5	4	9	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	1
1883.....	4	5	9	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1884.....	5	6	11	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1885.....	.	3	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1885 <sup>1</sup> .....	2	3	5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1886 <sup>2</sup> .....	4	1	5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1887.....	4	6	10	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	1
1888.....	5	6	11	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	1	3
1889.....	11	5	16	.	2	2	.	.	.	.	.	.	1	.	1	.	.	.	2	3	5
1890.....	2	5	7	.	.	.	1	.	1	.	.	.	.	.	.	.	.	.	.	3	3
1891.....	3	6	9	2	2	4	.	1	1	.	.	.	.	.	.	.	.	.	1	3	4
Total.....	164	129	293	2	4	6	1	1	2	.	.	.	1	.	1	.	.	.	7	12	19

<sup>1</sup> Eight months, ending Dec. 31, 1886.<sup>2</sup> This and following years end Dec. 31.



# ANNUAL REPORT OF MARCELLA-STREET HOME

MARCELLA-STREET HOME,  
BOSTON HIGHLANDS, Jan. 1, 1892

*To the Commissioners of Public Institutions:*

GENTLEMEN: I respectfully submit the annual report of this institution for the year 1891. The number of inmates has been about the same as in former years. The largest number at any one time was 367; the lowest, 341; the daily average, 355. We have boarded a daily average of 100 leaving in the institution a daily average of 251.

Number remaining Jan. 1, 1891:

Neglected boys	.	.	.	.	.	.	50
Pauper "	.	.	.	.	.	.	170
Neglected girls	.	.	.	.	.	.	33
Pauper "	.	.	.	.	.	.	100

Number received from Jan. 1, 1891, to Jan. 1, 1892:

Neglected boys	.	.	.	.	.	.	22
Pauper "	.	.	.	.	.	.	156
Neglected girls	.	.	.	.	.	.	20
Pauper "	.	.	.	.	.	.	102

Number in institution during year . . . . .

Number discharged from Jan. 1, 1891, to Jan. 1, 1892:

Neglected boys	.	.	.	.	.	.	19
Pauper "	.	.	.	.	.	.	166
Neglected girls	.	.	.	.	.	.	13
Pauper "	.	.	.	.	.	.	105

## Number remaining Jan. 1, 1892 :

Neglected boys	.	.	.	.	.	.	53
Pauper	"	.	.	.	.	.	160
Neglected girls	.	.	.	.	.	.	40
Pauper	"	.	.	.	.	.	97
						—	350
Highest number during the year	.	.	.	.	.	.	367
Lowest	"	"	"	.	.	.	341
Daily average	"	"	.	.	.	.	355

## HEALTH.

The general health of the inmates has been good. What sickness we have had is such as any household is liable to have. There have been four deaths in the schools. We have had but ten cases of ophthalmia, eight of whom were suffering from the disease when admitted. We were again visited by la grippe. The excellent health of the inmates is due in a great measure to the sanitary conditions of the building and the close observance of regular habits. That our mortality is low is shown by the number of inmates that we have had during the year, and the number of deaths during the same period.

## SCHOOLS.

The schools constitute the most important work of the institution. We have been particularly fortunate in having a most efficient corps of teachers, and the result is that the standing of our schools compares favorably with the same grade of public schools. We regret that the resignation of Mr. Weller had to be accepted to allow him to further his studies, but his place has been most acceptably filled by Mr. Pelletier, who commenced his duties as principal of the schools in October, 1891. The report of the principal of the schools is appended.

## INDUSTRIAL.

No addition has been made to this department during the year, — knitting stockings by machine in the boys' department, and sewing-machine work in the girls' department, being our only work. This branch of the institution is worthy of your consideration. The most progressive institutions of the country are providing suitable industrial training for their inmates, and I sincerely hope that some movement will

soon be inaugurated towards providing something of this kind at this institution.

#### COUNTRY HOMES.

This year has been the agent's (Mr. John E. McCarthy) most successful one. He has placed in country homes 7 children. Of the large number that he has placed in homes in past years fully ninety per cent. are doing well. This is a very important adjunct to the institution, and the results must be most gratifying to your Board as well as to the agent. I have been with the agent on several of his visits to the children that he has put into homes, and can speak in only the highest terms of his judgment. The children were all in most excellent places. No work connected with the institution requires better judgment, or is of greater responsibility than that of providing proper homes for children.

#### LIBRARY AND READING-ROOM.

The library contains about 1,000 volumes, including many instructive as well as amusing books. The reading room is furnished with all the principal juvenile magazines.

#### BAKERY.

We have baked 81,058 loaves of bread, using 732 barrels of flour. We have also made 48,970 ginger-cakes. This includes the supply for Austin Farm and the Charlestown Almshouse, both of which institutions we do the baking for.

#### RELIGIOUS SERVICES.

The religious services have been conducted for the Catholics by the Rev. Fr. Colgan ; for the Protestants, by Rev. J. W. Waldron.

#### BOARDING.

Quite a number of the inmates of this department have been boarded at farms during a great part of the year. This has no doubt greatly assisted the agent in securing places, and people living in the neighboring towns were able to see the children and make a selection without taking a journey to the city. A more extended account of this branch will be found in the Nursery Report, as it was for the latter department that we inaugurated the plan. We have boarded them in very comfortable places. Great care has been used in selecting boarding-places, and no child placed where the few dollars maintenance money obtained was apparently the only object in taking the children.

A temperance society, under the direction of Mrs. M. J. Magennis, has been reorganized during the year, and nearly all the inmates belong to it. Many of the children know by bitter experience the curse of intemperance, and gladly respond to the opportunity of taking a stand against the habit which has caused so many of them to become inmates of the institution.

Through the philanthropy and kindness of Mrs. Quincy Shaw, Miss Claire, a very efficient sewing teacher, has been teaching the girls practical knowledge of garment cutting and making.

#### ENTERTAINMENTS.

We have given entertainments from time to time. A list of those given will be found in the School Report. These entertainments greatly break the monotony of institution life and are productive of a great deal of good. The children look forward to and thoroughly enjoy the entertainments provided.

We are indebted to Mrs. Quincy A. Shaw and Mrs. Edith P. Wolcott for their great interest in the children here, and for many generous favors.

In closing, permit me to thank your Board for the kind and courteous treatment which I have always received at your hands. To the chairman, Doctor Jenks, I am indebted for the especial interest he has taken in the work of this institution.

Respectfully submitted,

A. B. HEATH,  
*Superintendent.*

## HOSPITAL REPORT.

*To the Commissioners of Public Institutions:*

GENTLEMEN: I respectfully submit the report of the hospital of this institution. The following diseases have been treated:

*Diseases of the Respiratory Organs.*

Pneumonia . . . . .	6		La grippe . . . . .
Bronchitis . . . . .	2		

*Diseases of the Digestive System.*

Diarrhœa . . . . .	1		Indigestion . . . . .
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*Fevers and General Diseases.*

Febricula . . . . .	18		Erysipelas . . . . .
General debility . . . . .	1		Scrofula . . . . .

*Skin Diseases.*

Scabies . . . . .	1		Eczema . . . . .
Ringworm . . . . .	2		Urticaria . . . . .

*Diseases of the Throat.*

Tonsillitis . . . . .			
-----------------------	--	--	--

*Diseases of the Eye.*

Conjunctivitis . . . . .	10		Ulcer of Cornea . . . . .
--------------------------	----	--	---------------------------

*Diseases of the Ear.*

Abscess . . . . .	2		Purulent inflammation . . . . .
-------------------	---	--	---------------------------------

*Surgical.*

Fracture ulna . . . . .	1		Boils . . . . .
Dislocation elbow . . . . .	1		Admitted for observation 16
Potts' curvature . . . . .	3		Vaccinations . . . . . 6
Abscesses . . . . .	12		Teeth extracted . . . . . 11
Ulcers . . . . .	8		

The number admitted for observation includes all new inmates, who in every case are sent to the hospital for examination.

The number of children remaining in the hospital at this date is 25, with the following-named diseases :

Potts' curvature of spine,	1
Eczema,	1
Scrofula,	2
White swelling on knee,	1
Granular eyelids,	1
Ulcers,	1
Otorrhœa,	1
Incised wounds,	3
La grippe,	14

We had two deaths from pneumonia, one from scrofula, and one from heart disease. The nurses have performed their duties in a very satisfactory manner, and to them in a great measure is due the excellent results shown.

Respectfully submitted,

A. B. HEATH,  
*Physician.*



## REPORT OF PRINCIPAL TEACHER.

MARCELLA-STREET HOME,  
BOSTON HIGHLANDS, Jan. 1, 1892.

Dr. A. B. HEATH, *Superintendent*:

DEAR SIR: The report of the schools of Marcella-street Home for the year ending Dec. 31, 1891, is herewith presented.

This being my first report to you, I believe a few words respecting the method which I am pursuing will not be amiss. My plan, like that of my predecessor, is, and shall be, to give the children under my charge a good, plain, serviceable education, the maximum attention being paid to the three "R's."

On the inception of my duties as principal of schools I found them and everything connected with them in excellent order and condition. For this, praise is due to Mr. Francis J. Weller, my efficient predecessor.

I have to say that attendance at schools has been remarkably good, no serious sicknesses or diseases having arisen to prevent the regular presence of the children in the school-room. Absence from school has been due simply to the slight indispositions incident to the life of the average child.

The girls' kindergarten is showing good results under Miss Chaffin. It seems a pity that the boys cannot have a like advantage with the girls in this respect; they would undoubtedly show gratifying results. If the boys were to have a kindergarten training it would relieve Miss McCarthy of some of her very young pupils, thus enabling her to give undivided attention to those whose minds are ready to receive the rudiments of education. She certainly deserves praise for the good results she has obtained with her large class this year.

Miss Crowell is ably represented during her absence by Miss Preston, whose conscientious efforts show pleasing results.

Miss Ella Morrow is to be commended for her untiring efforts in behalf of her class. She has succeeded in making her class-room more cheerful and pleasant by the judicious use of potted plants. The good effect of a bright, cheery schoolroom is soon evidenced in the pupils.



The following table contains the usual data :

Pupils remaining Dec. 31, 1890	.	.	.	.	.	2
Admitted during the year 1891	.	.	.	.	.	1
Total pupils taught	.	.	.	.	.	4
Discharged from the school	.	.	.	.	.	1
Remaining Dec. 31, 1891	.	.	.	.	.	2

The average age of the pupils now attending school about eight years.

I have to report in attendance at special schools two Deaf and Dumb Asylum, Hartford, two at Perkins Institute for the Blind.

Very respectfully yours,

JOS. C. PELLETIER,

*Principal.*

## HOME FOR PAUPERS, RAINSFORD AND LONG ISLANDS.

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RAINSFORD ISLAND, BOSTON HARBOR,

Dec. 31, 1891.

*To the Board of Commissioners of Public Institutions,  
Boston:*

GENTLEMEN: I respectfully present the following report of the Home for Paupers for the year 1891:

Long Island is now occupied by the male paupers. It is a large island, and many improvements in grounds and buildings are much needed. During the winter we are well provided with all kinds of help, but in the summer we are left with those incapacitated by disease and age, so that we are mainly dependent for our labor upon Deer Island. During the past summer and fall we had about 50 prisoners daily from Deer Island employed on the farm and in digging the cellar for the new hospital. There is no reason why, with sufficient labor and proper care, this island should not repay a large percentage of the present cost of maintenance. At the time of its purchase by the city of Boston the land was in an impoverished condition, and it still requires a large amount of fertilizer to make it fully productive. By permitting the raising of small fruits, plants, and flowers for the market a considerable sum would doubtless be realized. The planting of trees for the protection of crops and improving the appearance of the island seems called for. The wharf at Rainsford Island requires repairing. The new hospital at Long Island is well under way, and will probably be ready for occupancy about the middle of May, 1892. I would recommend the building of a new piggery on Long Island and coal-sheds on each island.

We have planted a number of trees raised by ourselves, and have put in a number of trench-drains in many parts of the low lands.

The general health and condition of the inmates remain excellent, considering the class of people we have. All seem contented and happy. Their religious wants are attended to by Rev. Fathers Broderick and Casey, and Rev. Mr. Toulmin, the Chaplain at Deer Island. Much credit is also due Mrs. Magennis and others for their kindly interest in the religious condition of the inmates. We are grateful

for the abundant supply of reading material furnished by the Hospital Newspaper Society. To the resident physician and his assistant the inmates are indebted for ready assistance in sickness.

I thank the commissioners for their prompt attention. The chairman deserves great praise for his extensive practical knowledge of institutions and building matters.

I also thank the officers, matrons, and nurses for the manner in which they have performed their duties during the past year.

Accompanying this will be found the report of crops, etc., physician's report, and record of deaths, admissions, etc.

Respectfully submitted,

JOHN GALVIN,

*Superintendent.*

Number of inmates remaining at Rainsford and Long Islands, Dec. 31, 1891, males . . . . .	4
Number of inmates remaining at Rainsford and Long Islands, Dec. 31, 1891, females . . . . .	4
Number admitted at Rainsford and Long Islands, from Jan. 1 to Dec. 31, 1891, males . . . . .	7
Number admitted at Rainsford and Long Islands, from Jan. 1 to Dec. 31, 1891, females . . . . .	5
Number discharged at Rainsford and Long Islands, from Jan. 1 to Dec. 31, 1891, males . . . . .	6
Number discharged at Rainsford and Long Islands, from Jan. 1 to Dec. 31, 1891, females . . . . .	4
Number discharged by death at Long Island, from Jan. 1 to Dec. 31, 1891, males . . . . .	
Number discharged by death at Rainsford and Long Islands, from Jan. 1 to Dec. 31, females . . . . .	
Largest number at Long Island during the year ending Dec. 31, 1891, males . . . . .	4
Largest number at Rainsford and Long Islands during the year ending Dec. 31, 1891, females . . . . .	4
Smallest number at Rainsford and Long Islands during the year ending Dec. 31, 1891, males . . . . .	2
Smallest number at Rainsford and Long Islands during the year ending Dec. 31, 1891, females . . . . .	4
Average number at Rainsford and Long Islands during the year 1891, males . . . . .	3
Average number at Rainsford and Long Islands, during the year 1891, females . . . . .	4

## SUMMARY OF CROPS, ETC.

21 tons	ensilage, for fodder.
15 “	of oats “ “
20,000	cabbages.
350 bushels	of purple-top turnips.
250 “	“ ruta-baga “
250 “	“ onions.
400 “	“ carrots.
300 “	“ mangels.
30 “	“ peas.
10 “	“ beans.
50 “	“ tomatoes.
600 “	“ potatoes.
250 “	“ blood beets.
3 tons	of squash.
9,000 heads	of celery.
50 tons	of hay.
15,000	bedding-plants, for decorating grounds.
1 ton	of rhubarb.
150 bunches	of asparagus.
10 bushels	of cucumbers.
10 barrels	of apples.
10 bushels	of peppers.
18,793 pounds	of pork.
1,000 ears	sweet corn.
1,368 dozen	of eggs.
68,162 quarts	of milk.
10 dozen	chickens.

To JOHN GALVIN, *Superintendent of Long and Rainsford Islands Institutions:*

SIR: I have the honor, as physician to the institutions Long and Rainsford Islands, to present the following report:

Number of patients remaining in hospitals Jan.

1, 1891 . . . . .		
Admitted :		
Males . . . . .	742	
Females . . . . .	680	
	<hr/>	1, 422
Total number treated in hospitals . . . . .		1, 422

Discharged :

Males . . . . .	653	
Females . . . . .	564	
	<hr/>	1, 217

Died :

Males . . . . .	49	
Females . . . . .	85	
	<hr/>	134

Total number discharged . . . . . 1, 351

Remaining in hospitals Jan. 1, 1892 :

Males . . . . .	122	
Females . . . . .	156	
	<hr/>	278

Daily average treated in hospitals . . . . . 2

Maximum number any one day . . . . . 2

Minimum " " " " . . . . . 1

Births at Rainsford Island . . . . . 1

Number treated as "out patients" . . . . . 6, 3

    " " in hospitals . . . . . 1, 6

Total number patients treated during year . . . . . 7, 9

## STATISTICS.

## MEDICAL DISEASES.

*Classified according to the Nomenclature of Diseases, as published by the Royal College of Physicians of London, and American Medical Association.*

DISEASES.	In hospitals Jan. 1, 1891.	ADMITTED.			DISCHARGED.			DIED.		In hospitals Jan. 1, 1892.
		Males.	Females.	Total treated.	Well.	Relieved.	Unrelieved.	Males.	Females.	
GENERAL DISEASES.										
A.										
Measles.....			8	8	8					
Typhoid fever.....		8	1	4	8				1	
Febricula .....		11	5	16	16					
Intermittent fever.....	2	16	2	20		17				8
Whooping cough.....			1	1						1
Influenza .....		8	2	5	5					
" epidemic, "Grippe," .....		28	21	49	30	8				11
Erysipelas .....		2	7	9	9					
" facial .....	1		8	4	8	1				
B.										
Rheumatism, acute articular,	2	18	6	26	16	4	3			8
" chronic .....	7	4	7	18		10	4		2	2
" sub-acute.....			1	1		1				
" gonorrhœal .....		8		8	1					2
" muscular .....		8	9	12	10	1				1
Syphilis.....	8	18	20	36		20	6			10

DISEASES.	In hospitals Jan. 1, 1901.	ADMITTED.			DISCHARGED.			DIED.	
		Males.	Females.	Total treated.	Well.	Relieved.	Unrelieved.	Males.	Females.
Syphilis, constitutional .....	1	...	4	5	...	1	...	2	...
"    congenital .....	...	2	2	4	...	...	1	2	1
Phthisis pulmonalis .....	28	48	16	87	...	27	30	8	7
Hæmoptysis .....	...	8	2	10	4	4	...	...	...
Acute miliary tuberculosis .....	...	2	...	2	...	...	...	2	...
Tubercular peritonitis .....	...	...	3	3	...	...	2	...	...
Diabetes mellitus .....	...	5	1	6	...	2	1	1	1
Purpura hemorrhagica . ....	...	1	2	3	2	...	...	...	1
Anæmia .....	...	1	...	1	1	...	...	...	...
Chlorosis .....	...	...	2	2	1	1	...	...	...
Intestinal tuberculosis .....	...	...	2	2	...	1	1	...	2
General tuberculosis .....	...	...	1	1	...	...	...	...	...
NERVOUS SYSTEM.									
Cerebral embolism .....	...	...	4	4	...	1	...	...	3
"    hemorrhage .....	...	2	3	5	...	...	...	1	3
"    sclerosis .....	...	1	...	1	...	...	1	...	...
SPINAL CORD.									
Myelitis .....	...	...	2	2	...	1	...	...	...
Hemiplegia .....	10	5	10	25	...	6	2	1	5
Paraplegia .....	1	...	3	4	...	2	1	...	...
Locomotor ataxy .....	3	...	...	3	...	...	...	1	1
Neuritis .....	2	3	3	8	...	5	1	...	...
Ant. poliomyelitis .....	...	...	1	1	...	...	...	...	...

DISEASES.	In Hospitals Jan. 1, 1891.	ADMITTED.			DISCHARGED.			DIED.		In Hospitals Jan. 1, 1892.
		Males.	Females.	Total treated.	Well.	Relieved.	Unrelieved.	Males.	Females.	
Post-spinal sclerosis.....	2	2	.....	4	.....	2	1	.....	.....	1
Epilepsy .....	7	17	9	33	.....	.....	17	2	2	12
Epileptiform convulsions....	1	.....	1	2	.....	.....	1	.....	1	.....
Paralysis agitans... ..	.....	.....	1	1	.....	.....	1	.....	.....	.....
Hysteria .....	2	.....	4	6	.....	5	1	.....	.....	.....
Neuralgia .....	1	2	.....	3	2	1	.....	.....	.....	.....
Catalepsy.....	.....	1	.....	1	.....	.....	.....	.....	.....	1
Paresis .....	1	4	.....	5	.....	.....	3	.....	.....	2
Sciatica .....	..	1	.....	1	.....	1	.....	.....	.....	.....
Lumbago .....	.....	5	1	6	3	2	.....	.....	.....	1
Pleurodynia.....	1	.....	1	2	1	1	.....	.....	.....	.....
Cephalalgia .....	.....	8	2	5	5	.....	.....	.....	.....	.....
Hypochondriasis.....	.....	2	.....	2	.....	1	.....	.....	.....	.....
Pressure paralysis .....	.....	1	.....	1	1	.....	.....	.....	.....	.....
DISEASES OF INTELLECT.										
Mania, acute.....	.....	7	1	8	5	.....	3	.....	.....	.....
Monomania .....	.....	1	1	2	.....	1	.....	.....	.....	1
Melancholia.....	.....	.....	1	1	.....	.....	.....	.....	.....	1
Dementia .....	5	5	..	10	.....	.....	7	.....	.....	3
"    senile .....	.....	.....	6	6	.....	.....	4	.....	.....	2
"    post-paralytica .....	1	1	1	3	.....	.....	3	.....	.....	.....
Idiocy .....	6	4	.....	10	.....	.....	7	.....	.....	3
Insanity .....	.....	.....	1	.....	.....	.....	1	.....	.....	.....



DISEASES.	In Hospitals Jan. 1, 1891.	ADMITTED.			DISCHARGED.			DIED.		In Hospitals Jan. 1, 1892.
		Males.	Females.	Total treated.	Well.	Relieved.	Unrelieved.	Males.	Females.	
Insomnia .....		2		2	1	1				
DISEASES OF THE HEART AND ITS MEMBRANES.										
Heart disease, aortic .....	1	2		3		1	1	1		
“ “ mitral .....	1	12	2	15		4	2	2	1	
“ “ unclassified .....	6	4	29	39	7	15	6	2	6	
Angina pectoris .....			4	4	1					
Atheroma .....			1	1					1	
Aneurism, double carotid .....			1	1			1			
NOSTRILS.										
Nasal catarrh .....		1		1		1				
LARYNX.										
Laryngitis .....		1		1		1				
TRACHEA AND BRONCHI.										
Acute bronchitis .....	1	21	13	35	22	4	3			
Chronic “ .....	10	18	17	45	10	13	7	4	4	
Capillary “ .....	2	2	5	9	4	3		1		
Asthma .....	2	16	3	21		11	4			
LUNGS.										
Pneumonia, acute .....	2	8	8	18	11		1	2	2	
“ chr. catarrhal .....		7	2	9		2	1	4	2	
Emphysema .....		2		2		1				
Congestion .....	1			1		1				

DISEASES.	In Hospitals Jan. 1, 1891.	ADMITTED.			DISCHARGED.			DIED.		In Hospitals Jan. 1, 1892.
		Males.	Females.	Total treated.	Well.	Relieved.	Unrelieved.	Males.	Females.	
PLEURA.										
Pleurisy, acute .....	2	5	3	10	7	2	...	1	...	...
“ chronic .....	...	1	1	2	...	...	1	...	...	1
Empyema .....	...	...	2	2	...	...	...	...	1	1
ŒSOPHAGUS AND STOMACH.										
Stricture œsophagus .....	...	3	...	3	1	2	...	...	...	...
Hæmatemesis .....	...	...	1	1	1	...	...	...	...	...
Gastritis .....	...	6	...	6	5	1	...	...	...	...
Gastralgia .....	...	2	...	2	2	...	...	...	...	...
Gastric catarrh .....	...	8	4	12	9	2	...	...	...	1
“ ulcer .....	...	1	1	2	2	...	...	...	...	...
“ cancer .....	...	1	...	1	...	...	...	1	...	...
DISEASES OF DIGESTIVE SYSTEM.										
Thrush .....	...	...	1	1	1	...	...	...	...	...
FAUCES AND PALATE.										
Tonsillitis .....	...	2	...	2	2	...	...	...	...	...
PHARYNX.										
Pharyngitis .....	1	1	2	4	2	2	...	...	...	...
INTESTINES.										
Intestinal colic .....	...	...	1	1	2	2	...	...	...	...
“ cancer .....	1	...	1	2	...	...	1	...	1	...
Diarrhœa, acute ..	1	19	22	42	37	1	1	...	...	3

DISEASES.	In Hospitals Jan. 1, 1891.	ADMITTED.			DISCHARGED.			DIED.	
		Males.	Females.	Total treated.	Well.	Relieved.	Unrelieved.	Males.	Females.
Diarrhœa chronic.....	2	4	9	15	3	1	2	2	7
Enterrhorrhagia.....		1	...	1	1	...	...	...	...
Gastro-intest. catarrh.....		1	10	11	9	...	...	1	1
Constipation.....		1	...	1	...	...	...	...	...
"    chronic.....		5	3	8	5	2	...	...	...
Fecal impaction.....		2	...	2	2	...	...	...	...
LIVER.									
Hepatitis.....		...	1	1	...	1	...	...	...
Cirrhosis.....		...	2	2	...	...	1	...	1
Cancer.....		...	2	2	...	...	...	...	2
Jaundice, catarrhal.....	1	3	3	7	5	2	...	...	...
PERITONEUM.									
Peritonitis.....		...	6	6	5	1	...	...	...
URINARY SYSTEM — KIDNEY.									
Nephritis, acute.....		1	15	16	...	10	1	...	...
"    chronic.....	2	5	10	17	...	3	5	...	4
"    tubercular.....		1	...	1	...	...	...	1	...
Uræmia.....		...	1	1	...	...	...	...	1
BLADDER.									
Cystitis, acute.....		2	1	3	2	1	...	...	...
"    chronic.....		1	1	2	...	...	...	1	...
Paralysis.....		...	1	1	...	...	...	...	...
Atony.....		1	...	1	...	...	...	...	...

DISEASES.	In Hospitals Jan. 1, 1891.	ADMITTED.			DISCHARGED.			DIED.		In Hospitals Jan. 1, 1892.
		Males.	Females.	Total treated.	Well.	Relieved.	Unrelieved.	Males.	Females.	
DISEASES OF WOMEN —										
OVARY.										
Salpingitis.....			2	2	1	1				
Cyst.....			1	1						1
WOMB.										
Leucorrhœa.....	1		3	4	4					
Endocervicitis.....			2	2	1	1				
Cancer.....			2	2					2	
Lacerated cervix.....			2	2		1				1
Anteversion.....			1	1			1			
Prolapse.....			3	3			2			1
Vaginitis.....			2	2	2					
FUNCTIONAL — WOMEN.										
Dysmenorrhœa.....			1	1		1				
Menorrhagia.....			8	8	7	1				
Pregnancy.....	3		31	34	26		8			
PREGNANCY.										
Induced labor, deformed pelvis.....			1	1	1					
Miscarriage.....			1	1	1					
Post-partum hemorrhage.....			1	1	1					
Placenta prævia.....			1	1	1					
Convalescence pregnancy.....			3	3	1					2
Galactorrhœa.....			1	1		1				

DISEASES.	In Hospitals Jan. 1, 1901.	ADMITTED.			DISCHARGED.			DIED.	
		Males.	Females.	Total treated.	Well.	Relieved.	Unrelieved.	Males.	Females.
CUTANEOUS SYSTEM.									
Erythema .....		1		1	1				
Urticaria .....			3	3	2	1			
Eczema .....	2	3	7	12		10	2		
“    scrotal .....		1		1		1			
Psoriasis .....		8	3	11	7				
Scabies .....		2	1	3	2	1			
Herpes zoster .....		2	1	3	3				
Pediculi corporis .....		3	1	4	4				
Eczema capitis .....			1	1					
Phtheiri-asis .....		1		1	1				
Seborrhœa .....		1	1	2	1	1			
Alopecia areata .....			1	1					
Callositas .....	1	3	1	5		4	1		
Carbuncle .....		11	1	12	10				
Elephantiasis .....	1		1	2			1		1
Ichthyosis .....		1		1		1			
Keloid .....		1		1		1			
Dermatitis .....			1	1	1				
POISONS.									
Lead-poisoning, chronic .....		6		6		2	2	1	
Ivy-poisoning .....		2		2	2				
Morphine habit .....			1	1	1				

DISEASES.	In Hospitals Jan. 1, 1891.	ADMITTED.			DISCHARGED.			DIED.		In Hospitals Jan. 1, 1892.
		Males.	Females.	Total treated.	Well.	Relieved.	Unrelieved.	Males.	Females.	
Iodism .....		1		1	1					
Ptyalism .....		1		1	1					
Alcoholism, acute .....	3	77	21	101	91			2		8
"    chronic .....			2	2					2	
UNCLASSIFIED.										
Debility .....	22	29	44	95	38	25	8			24
"    senile .....	7	1	10	18		7	4	1	1	5
Senility .....	12	11	19	42			12	3	7	20
Inanition .....			4	4	3	1				
Infantile atrophy .....			1	1					1	
Marasmus .....			1	1		1				
Leukaemia .....			1	1		1				
Exposure .....			1	1	1					
Observation .....	5	2		7		1				
Malingering .....		1		1		1				
Surgical Diseases.										
GENERAL.										
Chancre .....	1	1		2		2				
Chancroids .....	2	1	2	5	3	1				1
Lymphangitis .....		1	1	2	1	1				
Sarcoma .....			2	2			1		1	
"    multiple .....			1	1						1
Intestinal cancer .....	1		1	2			1		1	

DISEASES.	In Hospitals Jan. 1, 1891.	ADMITTED.			DISCHARGED.			DIED.	
		Males.	Females.	Total treated.	Well.	Relieved.	Unrelieved.	Males.	Females.
Lipoma .....		1		1			1		
Scrofulosis .....	1	1		2			2		
<b>BRAIN.</b>									
Cerebral congestion .....			1	1	1				
Cerebral gumma .....			1	1					
<b>DISEASES OF NERVOUS SYSTEM.</b>									
Delirium tremens .....	2	12		14	14				
<b>EAR.</b>									
Otorrhœa .....			1	1	1				
<b>ARTERIES.</b>									
Thrombosis .....			1	1		1			
<b>VEINS.</b>									
Varix .....			2	2		1			
<b>JAWS.</b>									
Alveolar abscess .....			1	1	1				
<b>INTESTINES.</b>									
Femoral hernia .....	2	4		6		2			
Inguinal " .....		1		1		1			
Ventral " .....	1	1		2			1		
Incarcerated hernia .....		2		2		2			
<b>RECTUM.</b>									
Fistula in ano .....		5	1	6			5		

DISEASES.	In Hospitals Jan. 1, 1901.	ADMITTED.			DISCHARGED.			DIED.		In Hospitals Jan. 1, 1902.
		Males.	Females.	Total treated.	Well.	Relieved.	Unrelieved.	Males.	Females.	
Hemorrhoids .....	2	4	.....	6	2	3	1	.....	.....	.....
Prolapse .....	.....	.....	5	5	.....	3	1	.....	.....	1
KIDNEYS.										
Pyelitis .....	.....	1	.....	1	.....	1	.....	.....	.....	.....
Renal calculus .....	.....	1	.....	1	1	.....	.....	.....	.....	.....
PROSTATE.										
Prostatitis, acute .....	.....	2	.....	2	1	.....	.....	.....	.....	1
"    chronic .....	1	.....	.....	1	.....	.....	.....	.....	.....	1
GONORRHOEA AND COMPLICATIONS.										
Urethritis .....	.....	4	.....	4	4	.....	.....	.....	.....	.....
Phimosis .....	.....	3	.....	3	3	.....	.....	.....	.....	.....
Paraphimosis .....	.....	1	.....	1	1	.....	.....	.....	.....	.....
Bubo .....	1	1	.....	2	1	1	.....	.....	.....	.....
Balanitis .....	.....	2	.....	2	2	.....	.....	.....	.....	.....
Epididymitis .....	.....	1	.....	1	1	.....	.....	.....	.....	.....
MALE URETHRA.										
Stricture .....	.....	6	.....	6	.....	5	1	.....	.....	.....
Fistula .....	.....	3	.....	3	.....	.....	3	.....	.....	.....
TUNICA VAGINALIS.										
Hydrocele .....	.....	2	.....	2	.....	2	.....	.....	.....	1
TESTICLE.										
Orchitis, acute .....	1	.....	.....	1	1	.....	.....	.....	.....	.....



DISEASES.	In Hospitals Jan. 1, 1891.	ADMITTED.			DISCHARGED.			DIED.	
		Males.	Females.	Total treated.	Well.	Relieved.	Unrelieved.	Males.	Females.
Orchitis, chronic .....		2	...	2	...	1	...		
VULVA.									
Abscess .....			2	2	2	...	...		
FEMALE BREAST.									
Mastitis .....			1	1	1	...	...		
Cancer .....	2	...	2	4	...	...	3	...	1
Abscess .....			1	1	1	...	...		
BONES.									
Periostitis .....		2	...	2	...	1	1	...	
Caries — spine .....			1	1	...	...	1	...	
Necrosis .....		2	...	2	...	1	1	...	
“ ischium .....		1	...	1	...	1	...		
JOINTS.									
Synovitis .....		2	...	2	1	1	...		
Morbus coxæ .....			4	4	...	...	3	...	
Arthritis deformans .....	1	...	...	1	...	...	...		
TENDONS.									
Thecal abscess .....			2	2	1	...	...		
Talipes varus .....			2	2	1	...	1	...	
“ valgus .....		1	...	1	...	...	...		
Contractures .....		1	...	1	...	...	...		
CUTANEOUS SYSTEM.									
Frost-bite .....		2	1	3	3	...	...		

DISEASES.	In Hospitals Jan. 1, 1891.	ADMITTED.			DISCHARGED.			DIED.		In Hospitals Jan. 1, 1892.
		Males.	Females.	Total treated.	Well.	Relieved.	Unrelieved.	Males.	Females.	
Ulcer, chronic .....	8	5	18	31	7	15				9
Felon .....			1	1	1					
Onychia .....		2	2	2						
INJURIES.										
Burns .....		2	1	3	2	1				
Burned foot .....			1	1	1					1
Contusions .....		11	1	12	12					1
" multiple .....		1	8	9	8	1				
" back .....		1	1	1	1					
Abrasions .....		2		2	2					
Contusion, abdomen .....			1	1	1					
Wound, incised .....		8	3	11	10	1				
" lacerated .....		2		2	1					1
" punctured .....			1	1	1					
" poisoned .....		1	1	2	2					
" gangrenous .....			1	1					1	
" scalp .....			2	2	2					
Fracture, ribs .....		2	2	4	3	1				
" femur .....		1	1	1	1			1		
" tibia .....			1	1						1
" fibula .....		1		1	1					
" " and tibia ..		1		1		1				
" femur intracapsular .....			1	1						1

DISEASES.	In Hospitals Jan. 1, 1891.	ADMITTED.			DISCHARGED.			DIED.	
		Males.	Females.	Total treated.	Well.	Relieved.	Unrelieved.	Males.	Females.
Fracture, femur (old) .....			1	1			1		
“ finger, phalanx....			1	1	1				
“ Colle's .....		1		1	1				
“ humerus.....			1	1	1				
“ ulna .....		1		1		1			
“ clavicle .....		3		3	2	1			
“ ankle ... ..	1			1		1			
“ Pott's .....		1	1	2		1			
“ radius .....			1	1	1				
“ inf. maxilla .....		1		1	1				
“ astragalus .....		1		1					
Dislocation humerus .....		1	2	3	3				
“ femur .....		1		1	1				
“ clavicle .....		1		1	1				
Sprained shoulder .....	1			1	1				
“ ankle .....		8	2	10	9				
“ forearm .....		1	1	2	2				
“ back .....		1		1					
“ wrist .....		3	1	4	3				
UNCLASSIFIED. ....		1		1					
Spider bite .....			1	1	1				
Abscess of foot .....			1	1	1				
Ecchymoses .....		2	3	5	5				

DISEASES.	In Hospitals Jan. 1, 1891.	ADMITTED.			DISCHARGED.			DIED.		In Hospitals Jan. 1, 1892.
		Males.	Females.	Total treated.	Well.	Relieved.	Unrelieved.	Males.	Females.	
Convalescence fracture . . . . .			1	1	1					
"    operation . . . . .		1		1		1				
Abscess . . . . .		5	2	7	6	1				
Bed-sore . . . . .		1		1		1				
Ulcer, arm . . . . .			1	1		1				
"    eczematous . . . . .	1	1		2		2				
"    varicose . . . . .	1		3	4		4				2
"    gangrenous . . . . .		1		1						1
"    foot . . . . .		2	2	4		3				1
Spermatorrhœa . . . . .		1		1		1				
Convalescence sprain . . . . .			1	1	1					
Extravasation urine . . . . .		1		1			1			
Drowned . . . . .		1		1				1		
EYE.										
Conjunctivitis, acute . . . . .	1	4	3	8	7					1
Trachoma . . . . .	1			1			1			
Trichiasis . . . . .			1	1	1					
Ulcer, corneal . . . . .		1		1	1					
Amanrosis . . . . .			3	3			3			1
Ectropion . . . . .		1		1						1
Ophthalmia . . . . .			3	3	2		1			
Totals . . . . .	207	742	680	1422				49	85	278

Of the large number receiving treatment as "out patients" many receive treatment for weeks in succession, and these we cannot conveniently classify in the preceding statistics.

Again and again have the hospital accommodations proved inadequate for those desiring and requiring hospital treatment, and on such occasions have we been obliged to use the Long Island infirmary for the overflow.

The work required in properly caring for such a large number of patients has necessitated a larger amount of care than ever before, and we are glad to state that the nurses and those associated with them in caring for the sick have faithfully performed the service required, and we desire at this opportunity to extend our thanks for their appreciative interest.

On December 26, no less than 296 patients were being treated in the various hospital-wards, this number being by far the largest in the history of the institution.

During the year 6,312 patients presented themselves for examination or treatment at "sick call" in both institutions.

By a new system, introduced this year, every inmate upon admission is examined as to mental and physical condition, and a daily report of the same made to the Superintendent, thus enabling the latter to assign to each a duty corresponding to his fitness for the same.

Of the 1,273 inmates admitted this year on permit and from leave, nearly four-fifths presented themselves for treatment.

It is to be deplored that a person admitted to this institution for the sole purpose of obtaining treatment (and after having been refused admission to any of the various hospitals in the city proper) should, upon his convalescence and discharge from here, be branded as having been an inmate of "Home for Paupers."

Could not some distinction be made to discriminate between that worthy class who seek admission for medical or surgical treatment, and that class who come here because they cannot or will not work outside?

There is an erroneous impression with those outside the institution that the majority of cases treated here are chronic and incurable; but a glance at the accompanying statistics will convince the most sceptical that such is not the case.

This year we are glad to be able to announce the near approach to completion of the new hospital.

It is the intention to treat all hospital patients, both male and female, in the new building, which, when completed, will contain beds for the accommodation of some 125 each for male and female patients.

The new building is so constructed that an excellent opportunity will be afforded for classifying patients and for isolating the refractory, demented, and dying.

When completed, the hospital will be separate and distinct from the institution proper — a model hospital.

In addition to a central distributing-kitchen to be located in the central ring, and in which will be prepared the various house diets required in the wards, provision has been made for a diet kitchen in each of the wards, to be used in preparing the various "special" diets.

In point of fact, the new hospital will, when completed, be as modern as intelligence and skill can make it.

We have been singularly fortunate this year in our freedom from contagious disease.

Measles appeared in the nursery at Rainsford early in March, but these cases were promptly isolated, and the three patients, with their mothers, "quarantined" until all danger of contagion had passed.

None of the cases of typhoid fever treated on Long Island during the year were contracted on the island, as far as our investigation showed.

We have had twenty-six births during the year, one of twins, and one by induced labor, the latter in a case of deformed pelvis, and in which we were successful in delivering a living child.

We have had two "still-borns," and no deaths have occurred in child-birth.

About the middle of December the "grippe" visited us, and within a week over one hundred inmates and many of the matrons and officers suffered more or less severely; but we are glad to state all recovered after a varying period of treatment.

During the year, additional bathing-facilities and rooms for isolating patients have been provided on Long Island.

I would recommend the appointment of a consulting board of physicians and surgeons, to whom application might be made as occasion required. I would also suggest the propriety of appointing an apothecary at Long Island, whose sole duty shall be the compounding of medicines.

The work in this department has assumed such proportions that the greater part of the steward's time is now engaged in preparing the various medicines as prescribed by the physicians, and this time properly belongs to the care of the patients.

Again, I would recommend the appointment of several female nurses, whose compensation might be necessarily small on account of the instruction which they would receive

and the benefit which they would derive from their experience and instruction in the care of both male and female patients. A woman can accomplish much more than a man in caring for the sick.

Early in January William D. Holmes, M.D., resigned his position as resident physician, to enter private practice and the undersigned assumed the duties January 20, L. F. Forrest, M.D., still discharging his duties as assistant physician.

In December another assistant physician, Charles E. Dever, M.D., was appointed, and to both these gentlemen we wish to extend our thanks for their earnest and faithful coöperation.

Drs. J. H. Sullivan, G. A. Miles, and W. J. Cavanagh have been associated with us as internes, and to these gentlemen and to Dr. J. W. Redmond who has been associated with us as substitute physician, we wish to refer for their interest in the welfare of the unfortunate sick.

In concluding, allow me to thank you for the kind interest so frequently manifested in the care of the unfortunate sick and suffering.

Respectfully,

DANIEL S. HARKINS, M.D.,  
*Resident Physician.*

## ALMSHOUSE, CHARLESTOWN.

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CHARLESTOWN DISTRICT, Dec. 31, 1891.

*To the Commissioners of Public Institutions:*

GENTLEMEN: I respectfully submit the annual report of this institution for the year 1891:

Number remaining Jan. 1, 1891:

Males . . . . .	46
Females . . . . .	112
	<hr/>
Total . . . . .	158

Admitted from Jan. 1, 1891, to Dec. 31, 1891:

Males . . . . .	62
Females . . . . .	68
	<hr/>
Total . . . . .	130

Discharged from Jan. 1, 1891, to Dec. 31, 1891:

Males . . . . .	58
Females . . . . .	79
	<hr/>
Total . . . . .	137

Remaining Dec. 31, 1891:

Males . . . . .	49
Females . . . . .	101
	<hr/>
Total . . . . .	150

Largest number during the year . . . . .	159
Smallest " " " " . . . . .	130
Average " " " " . . . . .	144

Two males and eleven females have died during the year. Their average age was sixty-seven years.

There has been a slight decrease in the number of inmates as compared with 1890, the average being three less.



general health has been enjoyed; no deaths have occurred from acute diseases, all being from chronic diseases of long standing, or senility. Since early in the present month there have been several cases of la grippe, none of which have proved fatal. I think it remarkable that so few deaths occur, as a large number of the inmates are very old and infirm when admitted. Many of their friends express wonder that they live so long, as they expected they would die soon after their admission, they having cared for them at their homes as long as possible, or until the burden had become more than they could endure.

During the year repairs and improvements have been made (without expense to the city except for material) viz.: The pig-pens have been entirely rebuilt in a thorough and substantial manner, two rooms have been connected to a men's infirmary, the office has been repainted on the inside, the walls of several rooms have been painted, the window-sashes of the whole institution drawn. The remaining rooms have been whitewashed, considerable repairs have been made to the walls and ceilings, new stairs laid, etc. A retaining wall has been built on the south-west water-front, and a fence placed upon it.

Religious services have been held as formerly; many kind friends from the city and surrounding towns have volunteered their assistance. Those of Catholic faith have attended St. Francis de Sales Church, on Bunker Hill street.

I desire to thank the many friends who have made liberal contributions of books, flowers, cards, pipes, confectionery, etc.; the Rev. D. W. Waldron, Marcellus Carpenter, Mr. Dyer, Mrs. Lane, Mrs. Pulsifer, and the Hospital Newspaper Society having done much for the comfort and entertainment of the inmates.

Entertainments have been provided on Thanksgiving day and Christmas which were well attended and enjoyed. Our kind and ever-welcomed friend, Marcellus Carpenter, favored us with his presence on Christmas day. He is ever ready to lend his assistance in any way to make things pleasant and agreeable.

Dr. R. W. Sprague, who has long been the visiting physician, still continues to look after the sick with his accustomed skill. His report is annexed.

I desire to compliment the matrons who have so faithfully attended to their many duties with tact and forbearance.

I most respectfully recommend that a new ice-room be built, and, if possible, that it be placed on the outside of the main building, which would allow the room now occupied to enlarge the women's dining-room; that a new porch be

built at the east end of the institution; also that new fence be built.

Your honorable Board will please accept my sincere thanks for all courtesies extended.

Yours respectfully,

CHANDLER EASTMAN,  
*Superintendent.*

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BOSTON, Dec. 31, 1891.

TO CHANDLER EASTMAN, Esq., *Superintendent of Charlestown District Almshouse:*

SIR: As visiting physician to the institution under your charge, I submit the following report for the year ending Dec. 31, 1891:

The general health to the first of December has been good, chronic cases as in previous years principally calling for treatment; but since then about sixty per cent. of the inmates have been attacked with "la grippe" in a mild form.

The deaths have been—females, 11; males, 2; and classified as follows: Valvular heart-disease, 5; paralysis, 2; phthisis, 1; Bright's disease, 1; cystitis, 1; cirrhosis of liver, 1; senility, 1; chronic bronchitis, 1; total, 13; average age of decedents, 67+.

I would respectfully suggest that some system of ventilating the building be introduced, and a larger room with improved facilities be fitted up for a dispensary.

Thanking you, Mrs. Eastman, and the matrons for your courtesy,

I remain,

Respectfully yours,

R. W. SPRAGUE, M.D.

## COUNTY OF SUFFOLK HOUSE OF CORRECTION.

SOUTH BOSTON, Jan. 1, 1892

*To the Commissioners of Public Institutions:*

GENTLEMEN: I have the honor of presenting the following report and statistics of Suffolk County House of Correction for the year 1891.

There has been a less number of commitments during the year than the year previous, but our average number considerably increased; for a portion of the time a number of men have *slept* in corridors for want of cell accommodations—a condition of affairs which calls for action in the direction of enlargement or rebuilding.

The management, employment, industries, and diet continue without change; have been well supplied with work for the inmates, except during a portion of the summer months, when some of the men were idle for a few days.

The repairs necessary to keep the place in good condition have been made mostly by mechanics who were committed; there is still much that can be done to improve the establishment, and considerable will be required during the coming year to maintain the institution buildings and fencing.

Fruit and vegetables from the grounds have been sufficient to nearly supply the officers' table; 14,497 pounds of pork was slaughtered.

Reports of visiting physician, Dr. Bancroft, and Chaplain Clark are appended.

Your honorable Board, to whom I am much indebted for assistance and advice, will please accept my thanks.

JOHN C. WHITON,  
*Master.*

	Males.	Females.	Total.
Remaining January 1, 1891 . . . . .	476	61	537
Committed by courts . . . . .	911	142	1,053
“ on revoked permit . . . . .	3	0	3
Returned from Lunatic Hospital . . . . .	1	0	1
	1,391	203	1,594
Discharged . . . . .	905	133	1,038
Remaining December 31, 1891 . . . . .	486	70	556

Largest number during the year, 585.

Smallest number during the year, 486.

Average number during the year: Males, 472; females, 66; total, 538.

Record of weight of prisoners received and discharged during the year is as follows:

727 gained 5,955 lbs. Average gain, 8 lbs. 3 oz. 1 dr.

238 lost 1,379 lbs. Average loss, 5 lbs. 12 oz. 11 dr.

Total gain, 4,576 lbs. Actual average gain, 4 lbs. 11 oz. 14 dr.

#### Causes for discharge:

Expired sentence . . . . .	840
Pardoned by Commissioners . . . . .	59
Paid fines and costs (amounting to \$1,508.83) . . . . .	59
By order of Municipal Court, for non-payment of fines and costs after serving three months . . . . .	49
Transferred to lunatic hospitals . . . . .	7
Transferred to Mass. Reformatory at Concord . . . . .	5
Pardoned by Governor . . . . .	5
Bailed . . . . .	5
Died . . . . .	3
Escaped . . . . .	3
Transferred to House of Industry . . . . .	2
By order of Supreme Court . . . . .	1
	<hr/>
	1,038

#### Offences for which committed:

	Males.	Females.
Larceny . . . . .	256	18
Drunkenness . . . . .	208	60
Assault and battery . . . . .	97	1
Breaking and entering . . . . .	62	1
Larceny from the person . . . . .	31	5
Larceny in a building . . . . .	28	0
Idle and disorderly . . . . .	20	6
Receiving stolen goods . . . . .	13	0
Adultery . . . . .	11	4
Unlawfully selling intoxicating liquors . . . . .	11	6
Assault and battery on an officer . . . . .	9	0
Assault and battery with a knife . . . . .	9	1
False pretences . . . . .	8	1
Vagrancy . . . . .	8	0
Disturbing the peace . . . . .	8	4
Indecent exposure . . . . .	8	0
Embezzlement . . . . .	7	0
Common drunkard . . . . .	6	2

	Males.	Females.
Unlawfully exposing and keeping for sale intoxicating liquors . . . . .	6	
Cruelty to animals . . . . .	5	
Assault and battery with a razor . . . . .	5	
Assault with intent to rob . . . . .	5	
Indecent assault and battery . . . . .	4	
Assault . . . . .	4	
Assault with a dangerous weapon . . . . .	4	
Unreasonably neglecting to support wife . . . . .	4	
Unreasonably neglecting to support minor children . . . . .	4	
Unlawfully appropriating horse and vehicle, Lewd and lascivious cohabitation . . . . .	4	
Forgery . . . . .	3	
Maliciously breaking glass . . . . .	3	
Polygamy . . . . .	3	
Assault with a pistol . . . . .	3	
Conveying property held on a conditional contract of sale . . . . .	3	
Robbery . . . . .	3	
Attempt to fraudulently obtain money . . . . .	2	
Fornication . . . . .	2	
Tramp . . . . .	2	
Malicious mischief . . . . .	2	
Keeping a noisy and disorderly house . . . . .	2	
Mischievously taking and driving horse without consent of the owner . . . . .	2	
Assault and battery with an axe . . . . .	2	
Uttering forged order for money . . . . .	2	
Using indecent language . . . . .	2	
Rescuing a prisoner from an officer . . . . .	2	
Profanity . . . . .	2	
Peddling without a license . . . . .	2	
Larceny from a conveyance . . . . .	2	
Disturbing public worship . . . . .	1	
Assault with a gun . . . . .	1	
Larceny from a vessel . . . . .	1	
Unlawful appropriation . . . . .	1	
Accosting a person with obscene language on a public street . . . . .	1	
Keeping and maintaining a house of ill- fame . . . . .	1	
Keeping a gaming-house . . . . .	1	
Attempt to break and enter . . . . .	1	
Disorderly conduct on a public conveyance, Unlawfully publishing and selling certain obscene pictures . . . . .	1	

	Males.	Females.
Attempt to commit larceny of property . . . . .	1	0
Evading payment of fare on railroad . . . . .	1	0
Threats to commit assault and battery . . . . .	1	0
Attempt to burn a dwelling . . . . .	1	0
Attempt to vote illegally . . . . .	1	0
Perjury . . . . .	1	0
Feloniously soliciting another to kill . . . . .	1	0
Being a lewd, wanton, and lascivious person . . . . .	1	0
Conspiracy to cheat and defraud . . . . .	1	0
Common night-walker . . . . .	0	16
Receiving for board an illegitimate infant without notifying the State Board of Lunacy and Charity . . . . .	0	1
Carrying on the business of a retail liquor-dealer without paying the special tax required by law . . . . .	0	1
Common railer and brawler . . . . .	0	1
	<hr/> 911	<hr/> 142

## SENTENCES.

	Males.	Females.
Fines and costs . . . . .	174	17
Costs and surety . . . . .	6	0
Surety . . . . .	4	0
30 days . . . . .	3	1
60 " . . . . .	2	1
90 " . . . . .	2	1
1 month . . . . .	3	1
2 months . . . . .	32	3
3 " . . . . .	112	17
4 " . . . . .	93	13
5 " . . . . .	13	2
6 " . . . . .	183	56
7 " . . . . .	3	2
8 " . . . . .	20	1
9 " . . . . .	22	1
10 " . . . . .	18	1
12 " . . . . .	113	21
13 " . . . . .	1	0
14 " . . . . .	2	1
15 " . . . . .	6	0
16 " . . . . .	4	0
18 " . . . . .	36	1

							Males.	Females.
24 months	.	.	.	.	.	.	42	
30 "	.	.	.	.	.	.	4	
36 "	.	.	.	.	.	.	13	
							<hr/>	
							911	

## AGES OF PRISONERS COMMITTED.

							Males.	Females.
20 years and under	.	.	.	.	.	.	95	
20 to 30 years	.	.	.	.	.	.	402	
30 " 40 "	.	.	.	.	.	.	243	
40 " 50 "	.	.	.	.	.	.	115	
50 " 60 "	.	.	.	.	.	.	44	
60 " 70 "	.	.	.	.	.	.	9	
70 " 80 "	.	.	.	.	.	.	3	
							<hr/>	
							911	

## NUMBER OF TIMES COMMITTED TO THIS INSTITUTION.

							Males.	Females.
First	.	.	.	.	.	.	554	
Second	.	.	.	.	.	.	138	
Third	.	.	.	.	.	.	83	
Fourth	.	.	.	.	.	.	46	
Fifth	.	.	.	.	.	.	24	
Sixth	.	.	.	.	.	.	14	
Seventh	.	.	.	.	.	.	12	
Eighth	.	.	.	.	.	.	5	
Ninth	.	.	.	.	.	.	4	
Tenth	.	.	.	.	.	.	5	
Eleventh	.	.	.	.	.	.	2	
Twelfth	.	.	.	.	.	.	4	
Thirteenth	.	.	.	.	.	.	2	
Fourteenth	.	.	.	.	.	.	3	
Fifteenth	.	.	.	.	.	.	3	
Sixteenth	.	.	.	.	.	.	3	
Eighteenth	.	.	.	.	.	.	1	
Nineteenth	.	.	.	.	.	.	1	
Twentieth	.	.	.	.	.	.	2	
Twenty-fourth	.	.	.	.	.	.	1	
Twenty-sixth	.	.	.	.	.	.	1	
Thirtieth	.	.	.	.	.	.	1	
Thirty-ninth	.	.	.	.	.	.	1	
Fortieth	.	.	.	.	.	.	1	
							<hr/>	
							911	

## NATIVITY.

Massachusetts . . . . .	484
Maine . . . . .	43
New York . . . . .	33
Virginia . . . . .	20
Rhode Island . . . . .	16
New Hampshire . . . . .	15
Pennsylvania . . . . .	9
Connecticut . . . . .	8
Vermont . . . . .	7
New Jersey . . . . .	5
Illinois . . . . .	5
Maryland . . . . .	5
District of Columbia . . . . .	4
Ohio . . . . .	3
California . . . . .	3
Kentucky . . . . .	3
South Carolina . . . . .	2
Missouri . . . . .	1
Oregon . . . . .	1
Louisiana . . . . .	1
Michigan . . . . .	1
Colorado . . . . .	1
North Carolina . . . . .	1
Minnesota . . . . .	1
West Virginia . . . . .	1
Nebraska . . . . .	1
New Mexico . . . . .	1
<hr/>	
Natives of United States . . . . .	675
Ireland . . . . .	187
Provinces . . . . .	68
England . . . . .	42
Canada . . . . .	19
Italy . . . . .	13
Germany . . . . .	12
Scotland . . . . .	11
Wales . . . . .	5
Sweden . . . . .	3
France . . . . .	3
Russia . . . . .	3
Poland . . . . .	3
West Indies . . . . .	2
Denmark . . . . .	1
Finland . . . . .	1



CITY DOCUMENT No. 30.

Asia Minor . . . . .	.	.	.	.	.	.	.	.
Austria . . . . .	.	.	.	.	.	.	.	.
Switzerland . . . . .	.	.	.	.	.	.	.	.
South America . . . . .	.	.	.	.	.	.	.	.
At sea . . . . .	.	.	.	.	.	.	.	.

NUMBER COMMITTED FROM EACH COURT.

Municipal Criminal Court of Boston . . . . .	.	.	.	.	.	.	.	.
Superior Criminal Court of Boston . . . . .	.	.	.	.	.	.	.	.
Chelsea Police Court . . . . .	.	.	.	.	.	.	.	.
Dorchester District Court . . . . .	.	.	.	.	.	.	.	.
East Boston " " . . . . .	.	.	.	.	.	.	.	.
South Boston " " . . . . .	.	.	.	.	.	.	.	.
Roxbury " " . . . . .	.	.	.	.	.	.	.	.
Charlestown " " . . . . .	.	.	.	.	.	.	.	.
West Roxbury District Court . . . . .	.	.	.	.	.	.	.	.
U. S. District Court . . . . .	.	.	.	.	.	.	.	.

NUMBER COMMITTED AND DISCHARGED DURING THE YEAR.

COMMITTED.				DISCHARGED.		
Males.	Females.	Total.		Males.	Females.	
98	17	115	January	91	8	
86	18	104	February	77	11	
57	3	60	March	77	17	
90	10	100	April	90	12	
57	7	64	May	91	18	
75	8	83	June	58	7	
89	21	110	July	92	10	
75	11	86	August	57	12	
69	13	82	September	56	5	
67	21	88	October	69	11	
82	9	91	November	75	8	
70	4	74	December	72	14	
915	142	1,057		905	133	1,038

WHOLE NUMBER COMMITTED DURING THE YEAR.

Males . . . . .	.	.	.	.	.	.	.	.	.
Females . . . . .	.	.	.	.	.	.	.	.	.
Adults . . . . .	.	.	.	.	.	.	.	.	.
Minors . . . . .	.	.	.	.	.	.	.	.	.
White . . . . .	.	.	.	.	.	.	.	.	.
Colored . . . . .	.	.	.	.	.	.	.	.	.

## MISCELLANEOUS.

Married . . . . .	328
Persons born in Massachusetts who cannot read or write . . . . .	16
Persons who cannot read or write . . . . .	113
Persons who can read, but not write . . . . .	19

Very respectfully,

JOHN C. WHITON,

*Master.*

BOSTON, Dec. 31, 1891.

To COL. JOHN C. WHITON, *Master of the House of Correction:*

SIR: I have the honor to submit the following report of the Medical Department of this institution for the year ending Dec. 31, 1891:

Patients remaining in hospital Jan. 1, 1891 . . . . .	11
Number admitted since . . . . .	262
Total number treated in hospital Jan. 1 to Dec. 31, 1891, inclusive . . . . .	273
Number discharged . . . . .	260
“ died . . . . .	3
Remaining in hospital Dec. 31, 1891 . . . . .	10

The following list gives the names of the diseases and the number of times each disease was treated during the year 1891:

*Medical.*

Alcoholism . . . . .	31	Hysteria . . . . .	1
Anæmia . . . . .	2	Influenza . . . . .	3
Bronchitis . . . . .	1	Lunatic . . . . .	7
Cephalalgia . . . . .	3	Malaria . . . . .	7
Child-birth . . . . .	1	Malingerer . . . . .	8
Cholera morbus . . . . .	2	Menorrhagia . . . . .	1
Constipation . . . . .	4	Neuralgia . . . . .	2
Debility . . . . .	8	Opium habit . . . . .	2
Diarrhœa . . . . .	8	Observation . . . . .	7
Dysentery . . . . .	1	Phthisis (pulmonary) . . . . .	11
Dyspepsia . . . . .	3	Pleurisy . . . . .	2
Eye-strain . . . . .	1	Rheumatism . . . . .	20
Epilepsy . . . . .	1	Sciatica . . . . .	1
Febricula . . . . .	2	Syphilis . . . . .	5
Feeble-minded . . . . .	2	Tape-worm . . . . .	2
Gastritis . . . . .	1		
Heart disease(valvular), . . . . .	1		
Hepatitis . . . . .	1		

*Surgical.*

Abscess . . . . .	8	Hernia . . . . .	
Adinitis . . . . .	1	Ingrowing nail . . . . .	
Boil . . . . .	3	Iritis . . . . .	
Bruise . . . . .	2	Œdema of larynx . . . . .	
Carbuncle . . . . .	2	Ophthalmia . . . . .	
Caries . . . . .	2	Otitis . . . . .	
Cellulitis . . . . .	1	Paraphimosis . . . . .	
Conjunctivitis . . . . .	2	Phimosis . . . . .	
Cystitis . . . . .	3	Retention of urine . . . . .	
Eczema . . . . .	1	Scald . . . . .	
Epididymitis . . . . .	1	Sprain . . . . .	
Erysipelas . . . . .	2	Stricture of urethra . . . . .	
Erythema . . . . .	1	Synovitis . . . . .	
Felon . . . . .	1	Syphilis . . . . .	
Fistula in ano . . . . .	1	Tonsillitis . . . . .	
Fracture, finger . . . . .	1	Ulcer . . . . .	
“ rib . . . . .	2	Wen . . . . .	
“ wrist . . . . .	1	Wound . . . . .	
Gingivitis . . . . .	3		
Hæmorrhoids . . . . .	4		

Two men have died during the year, — one from cerebral apoplexy, and one from valvular heart-disease.

One woman died from dementia.

Seven men and one woman have been adjudged to lunatics, and have been transferred to lunatic hospitals.

Respectfully,

W. B. BANCROFT,  
*Physician.*

## CHAPLAIN'S REPORT.

BOSTON, Dec. 31, 1891.

COL. JOHN C. WHITON :

SIR: I have the honor to present my annual report, as chaplain and librarian of this institution under your charge, for the year ending Dec. 31, 1891.

An item of importance is found in the passage of the recent law entitled "An act relating to the punishment of drunkenness." This act took effect July 1, 1891. This law is based upon the assumption that drunkenness is a crime. The effect is, and must be, far-reaching in a moral sense.

## PRISON LIBRARY.

The prison library has occupied much and special attention in my department during the past year. Its importance and influence upon the general welfare and discipline of the prisoners under our charge cannot be overestimated. I regret to say that we are so limited in our means, it has been impossible for us to meet the expectations of the men in reference to variety of topics and of subjects we would desire to furnish if in our power.

We cannot expect a larger supply from a generous public from which we have received the greatest portion of our reading-matter for many years now past. While other departments are receiving notable and well-merited attention, it is hoped that we also may have a few crumbs from the well-spread table before us.

Our facts relating to the condition of our library are our best arguments, and these facts are offered in the following statistics :

## STATISTICS.

Total number of volumes in library of the House of Correction to date, Dec. 31, 1891	.	.	2,205
Donations during the year 1891 :			
Hospital Association	.	.	239
Jonas B. Clarke	.	.	78
Inmates of the prison	.	.	413
Discarded as unfit for further use	.	.	385
Library books in circulation	.	.	452
Average daily distribution	.	.	219
Books repaired	.	.	394

Total number of school-books . . . . .	1,1
Total number of prayer-books and Testaments . . . . .	2
Total number of Bibles . . . . .	1
Grand total . . . . .	3,

About 25 per cent. of the above are worthless or nearly worn out in service.

School-books in use . . . . .	4
Slates, 132 ; Bibles, 97 . . . . .	2
Prayer-books and Testaments . . . . .	1

From the above statistics we are able to place before the Commissioners our necessities.

An advanced system of distributing and recording of books is a necessity. We should have a revised and well printed catalogue of all books now found upon the shelves of our library. Five hundred would be sufficient for our present need, and should be so arranged that it could be easily enlarged without reprinting the whole, by inserting fly-leaves for additional books. These catalogues should be placed in every cell, with a small and inexpensive slate and pen. Without such an arrangement as the above, it is utterly impossible to avoid confusion and loss. The law of service and protection is the law of a well-regulated library. Three distributions a week are quite equal to the full necessity of the reader. The object of the Chaplain is to adopt the best method of distributing the library. We have tried the direct circulation long enough to convince us that it is impossible to meet the demand with our present method and number of books. The remedy for this is an additional supply of books.

#### CHAPEL SERVICES.

The chapel services have been held during the past year in accordance with the Protestant Episcopal Church of the U.S.A., and these services have been enlivened by the presence of a large number of clergymen and laymen from the city of Boston. We have to report the resignation of Professor Downes, the veteran organist of more than thirty years, from illness, and the appointment of Mr. Charles V. Ellis, of Boston, as organist.

Very respectfully submitted,

JONAS B. CLARKE,  
*Chaplain.*

## REPORT OF AGENT FOR DISCHARGED MALE PRISONERS.

---

14 BEACON STREET, BOSTON, Jan. 1, 1892.

*To the Commissioners of Public Institutions:*

GENTLEMEN: Your agent herewith presents his annual report for the year ending Dec. 31, 1891, and which embraces the aiding of prisoners, investigating applications for the release of inmates, and the procuring of homes in families for children of the Marcella-street Home and boys from the House of Reformation.

The whole number of discharged prisoners who have been aided within the past year is 1,455. All have received advice and material aid as seemed best adapted to their immediate wants, as follows: Transportation, 342; meals, 542; lodging, 391; clothing, 39; tools, 5; gratuities, 27; various other ways, 109. Of those assisted, 999 were discharged from the House of Industry; 230 from House of Correction; 109 from the House of Reformation and Truant School; 117 from Marcella-street Home; 480 lived in Boston; 570 lived in other parts of the State; 360 had homes in other States; 45 had no homes.

There has been considerable decrease in the number of applications for aid during the year. This is probably due to the assistance given by the Massachusetts Prison Association, which employs an agent who looks after the welfare of those discharged from all the prisons of the State.

Miss S. P. Burnham, the agent to assist female prisoners, has rendered aid and assistance to 770 women; transportation to their homes has been furnished in and out of the city, and those having no homes have been sent to charity homes.

Many of those aided are very grateful for the assistance given them in their time of need, and we are constantly in receipt of letters and messages from those who have been benefited, expressing thanks for assistance given. Few of those sent out of the State ever return, and many are rescued by the timely aid rendered; and the help given often makes an honest life possible.

## INVESTIGATION FOR THE RELEASE OF INMATES.

Seventeen hundred and ninety applications were made during the year for the release of inmates from the several institutions under your charge. These are classified in the following table :

	Applications for Pardons.	Pardons granted on Probation.	Men.	Women.	Pardons Refused.
House of Correction ..	73	55	51	4	
House of Industry ...	1,560	1,430	1,266	164	13
			Boys.	Girls.	
House of Reformation,	84	77	77	.....	
Truant School .....	53	42	42	....	
Marcella-street Home, neglected children ..	20	11	8	3	
Total .....	1,790	1,615	1,444	171	13

Since July 1, 1891, 194 applications for pardons have been referred, by order of your Board, to the probation officers of the several courts for investigation, 96 of which were recommended by them and concurred in by the judges who passed sentence. The remaining 98 were refused, and are included in the above table.

## BOYS OF THE HOUSE OF REFORMATION.

The average of boys placed out on indenture from the school is 15 years, an age when they are unsettled and will need wise counsel, prudent government, and firm direction, and if placed in the right family, where they are made to feel they have a good home and friends, and are not taken solely for their labor, they generally do well.

Although commitments are made during minority they are indentured on condition they receive wages for services when competent, though many are content to remain without compensation when good school advantages or other inducements are offered. I find many boys who, having served their indenture, are ill fitted to go into the world and take care of themselves without some one as a protector; they

cheated in their wages, get into unsuitable families, and are easily led into shiftless or vicious habits.

I am frequently applied to by boys out of their time to secure them employment, collect wages, etc.

The per cent. of well-doing is much larger among those who go to country homes than those who return to friends; the removal from the temptations of city life and from evil companions has proved to be the turning point in the lives of many. Our desire is to place these boys where they are needed and where they have the best chances of becoming good men.

We could, if expedient, illustrate this report with the personal histories of some of those placed in families during the past eighteen years, who are now holding positions of trust and responsibility in stores, counting-rooms, and in many trades and occupations, who previously, for the want of home and friends, and the influence of friendship, had been brought to the conditions of offenders. Seven graduates from the Printing Department during the year have obtained employment in this city and vicinity.

The per cent. of well-doing among those of this school is about 70. Those not doing well were not obnoxious to the law, but cannot say they do well.

### HOMES FOR CHILDREN.

The children of the Marcella-street Home are there, not because they require discipline, but because they are poor and need care, many having no home or friends to care for them, or, if so, are unsuitable; it is for this latter class that homes are provided.

There is no lack of good homes for desirable children of ten years and over. In the past twelve months I have found on my visits to those previously placed out, 187 good families willing to take boys and girls.

These were not all supplied, for the reason some of them required older children than we could furnish. On several occasions I have taken children out with me on my trips and have always found them homes the same day. Families who can have them brought to the door are more likely to take them than when a journey to Boston, or elsewhere, is necessary to procure them. The thoroughness in investigating places offered generally secures good ones, although some families fail to get along with the child sent to them, and yet do well with others; and there are children who could not stay in some places where others are contented. Many persons who are wholly unfit to have the care of chil-



dren make application for them, and present certificates declaring their fitness, but personal investigation has proved them undesirable.

#### BOARDING.

The practice, for the past three years, of boarding infants in families in the suburban towns has worked well and to the satisfaction of your Board.

Places are selected with care, under the direction of Dr. Heath. Many of these children, when received at the institution, are in delicate health, the result of gross neglect, constantly require the services of Dr. Heath after they have been placed in families.

Mrs. E. C. Dresser, the visitor to infants boarding, makes on an average, two visits a month to each child and reports their condition, situation, etc.

Many of the families with whom children are boarded become so attached to them that they cannot part with them, and in many cases children have been placed on indenture after board has been paid but a few months.

#### VISITATION OF CHILDREN.

Under this head your agent is required to visit all children in charge of the city, who have been indentured, given in adoption, or placed in charge of any family or person approved by your Board.

It is my duty to visit the said children, or cause them to be visited, at least twice each year; to inquire into their treatment, health, and associations, and especially to ascertain whether their legal rights have been invaded, and all contracts made in their behalf have been duly observed. I have the right to hold private interviews with the children whenever I may deem it advisable.

My travels have extended to nearly all parts of Massachusetts and in several of the adjoining States. These visits were unannounced and unexpected. It has been found necessary in some cases to make removals; some, because those with whom they were placed failed to comply with the conditions required by their indenture; and others for not answering the places. If the child has been out but a short time, the first visit will not answer all purposes, and he must be summered and wintered before it can be ascertained how he is to be treated, if he is to be properly schooled, clothed, and worked. More can be learned from the second visit than the first.

Seven cases of ill-treatment I have discovered during

year, and they were all removed on account of such usage. There was some neglect and slight abuses in other families which were rectified when brought to their attention. Your agent is indebted to the clergy, Catholic and Protestant, who have done much to procure homes for those of their respective faiths; they often settle difficulties arising between the children and the persons with whom they live, which would otherwise require my presence. The health of the children on indenture has been excellent, and there has been no death. Five of our charges have married; 3 in the neighborhood where indentured, and 2 who had previously been permitted to return to friends.

Seven hundred and fifty visits were made the past year to 490 children on indenture, their condition and deportment ascertained and recorded.

Number of children for whom homes have been procured during the year is 91.

	Boys.	Girls.
From House of Reformation . . .	17	
“ Truant School . . .	2	
“ Marcella-street Home . . .	45	27

Jan. 1, 1891, there were 455 indentured children subject to visitation, and of this number there have passed from the control of the Board 56, classified as follows:

	Boys.	Girls.	Total.
Arrived at age . . . . .	5	4	9
Indenture expired . . . . .	7	5	12
Married . . . . .	2	4	6
Absconded and not found . . . . .	7		7
To care of friends . . . . .	14	8	22
			<hr/> 56

The total number at present in homes procured for them, and subject to visitation at close of the year, is as follows:

	Boys.	Girls.	Total.
House of Reformation . . . . .	38	4	42
Truant School . . . . .	5		5
Marcella-street Home . . . . .	273	170	443
Children boarding . . . . .	45	35	80
	<hr/>	<hr/>	<hr/>
Total . . . . .	361	209	570

## LOCATION OF CHILDREN IN PERMANENT HOMES.

	Cities and Towns.	C
In Massachusetts . . . . .	72	
“ New Hampshire . . . . .	47	
“ Vermont . . . . .	22	
“ Maine . . . . .	18	
“ Connecticut . . . . .	4	
“ Rhode Island . . . . .	7	
“ other States . . . . .		
Total . . . . .		

The ages of children placed on indenture the past year as follows :

Over 3 years and under 6 . . . . .	15
“ 6 “ “ “ 10 . . . . .	33
“ 10 “ “ “ 12 . . . . .	25
“ 12 “ “ “ 16 . . . . .	18
Total . . . . .	91

## CONCLUSION.

In the past twelve months there has been made 750 v to children, and 187 homes procured for others, 91 of w were filled ; made 57 transfers from one family to ano and to the Marcella-street Home, 12 ; sent 3,200 letters circulars and received 2,720.

I wish to express my obligations to my associates, Chas. E. Grinnell and Mrs. E. C. Dresser, for efficiency faithfulness, also to Miss Mary A. Maynard, who for years previous to July last was the voluntary visitor to 40 Catholic girls who are in familes in this city and subu as well as providing homes for many. Her work was p tical and effective, and her monthly visits were conduci much good, and were looked forward to by the girls much pleasure ; but on account of ill-health she was obl to abandon a field for which she was so qualified and in w she had accomplished so much good.

To you, gentlemen of the Board, I have reason to ap ciate the repeated evidence of your confidence in my v in the behalf of the unfortunates committed to your care

Respectfully submitted,

JOHN E. MCCARTHY

[DOCUMENT 31 — 1892.]



ANNUAL REPORT  
OF THE  
DEPARTMENT FOR THE REGISTRATION  
OF VOTERS,  
FOR THE YEAR 1891.

BOSTON, Jan. 25, 1892.

HON. NATHAN MATTHEWS, JR.,  
*Mayor of the City of Boston:*

SIR: In accordance with the requirements of Chap. 45 of the Revised Ordinances, the Board of Registrars of Voters respectfully submit their annual report for 1891.

The expenditures of the department from Jan. 1, 1891, to Jan. 31, 1892, are as follows, viz.:

Salary of Registrars . . . . .	\$9,750 00
Assistant Registrars and Clerks . . . . .	18,401 22
Printing . . . . .	4,961 50
Stationery . . . . .	790 23
Janitors . . . . .	800 00
Publishing names in newspapers . . . . .	723 40
Advertising . . . . .	942 76
List of assessed polls . . . . .	2,386 94
Jury list . . . . .	228 33
Contingent . . . . .	3,039 32

---

\$42,023 70

The following pages show, in tabulated form, the asse  
polls, registered voters, and votes cast in this city at  
the State and Municipal Elections of 1891.

Respectfully submitted,

LINUS E. PEARSON,

MICHAEL CARNEY,

CHARLES E. CLARK,

*Board of Registrars of Voters*

**TABULATED STATEMENT**  
**OF**  
**ASSESSED POLLS, REGISTERED VOTERS, AND**  
**VOTES CAST AT STATE AND MUNICIPAL**  
**ELECTIONS,**  
**1891.**

**Assessed Polls (men), 1891.**

<b>Wards.</b>	<b>PRECINCTS.</b>							
	<b>1.</b>	<b>2.</b>	<b>3.</b>	<b>4.</b>	<b>5.</b>	<b>6.</b>	<b>7.</b>	<b>8.</b>
<b>1 . . .</b>	682	528	459	550	513	638	830	659
<b>2 . . .</b>	696	629	804	705	664	631	912	...
<b>3 . . .</b>	572	678	536	688	655	615	...	...
<b>4 . . .</b>	577	587	634	682	726	685	...	...
<b>5 . . .</b>	589	617	792	494	872	761	...	...
<b>6 . . .</b>	763	865	742	899	913	...	...	...
<b>7 . . .</b>	630	569	774	714	1104	...	...	...
<b>8 . . .</b>	680	553	708	841	1008	751	...	...
<b>9 . . .</b>	736	802	785	800	785	...	...	...
<b>10 . . .</b>	775	1183	523	906	...	...	...	...
<b>11 . . .</b>	414	399	476	445	1059	981	574	770
<b>12 . . .</b>	620	599	610	1090	981	...	...	...
<b>13 . . .</b>	1003	915	839	813	619	741	737	640
<b>14 . . .</b>	671	767	675	527	731	681	619	679
<b>15 . . .</b>	637	558	615	507	565	715	623	753
<b>16 . . .</b>	979	1130	820	951	837	857	...	...
<b>17 . . .</b>	673	585	591	555	621	691	725	452
<b>18 . . .</b>	520	602	601	530	596	685	651	...
<b>19 . . .</b>	891	690	921	789	781	941	745	766
<b>20 . . .</b>	862	589	581	431	607	691	503	614
<b>21 . . .</b>	500	643	456	560	590	608	476	436
<b>22 . . .</b>	692	648	621	509	557	530	62	434
<b>23 . . .</b>	624	667	558	570	549	381	461	442
<b>24 . . .</b>	573	529	490	640	639	527	504	482
<b>25 . . .</b>	724	659	648	730	530	600	...	...
<b>Total. .</b>	...	...	...	...	...	...	...	...

# REGISTRATION OF VOTERS.

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## Assessed Polls (men), 1891.

PRECINCTS.							Totals.	Wards.
10.	11.	12.	13.	14.	15.	16.		
...	...	...	...	...	...	...	5,566	.... 1
...	...	...	...	...	...	...	5,041	.... 2
...	...	...	...	...	...	...	3,744	.... 3
...	...	...	...	...	...	...	8,891	.... 4
...	...	...	...	...	...	...	4,125	.... 5
...	...	...	...	...	...	...	4,182	.... 6
...	...	...	...	...	...	...	3,791	.... 7
...	...	...	...	...	...	...	4,541	.... 8
...	...	...	...	...	...	...	8,908	.... 9
...	...	...	...	...	...	...	8,387	.... 10
627	682	...	...	...	...	...	7,231	.... 11
...	...	...	...	...	...	...	8,900	.... 12
...	...	...	...	...	...	...	7,054	.... 13
540	526	540	...	...	...	...	7,634	.... 14
...	...	...	...	...	...	...	4,973	.... 15
...	...	...	...	...	...	...	5,574	.... 16
...	...	...	...	...	...	...	4,893	.... 17
...	...	...	...	...	...	...	4,185	.... 18
...	...	...	...	...	...	...	7,195	.... 19
534	429	583	501	...	...	...	7,326	.... 20
598	501	627	...	...	...	...	6,571	.... 21
589	...	...	...	...	...	...	5,756	.... 22
504	578	475	466	252	...	...	7,085	.... 23
621	471	417	754	490	583	485	8,601	.... 24
...	...	...	...	...	...	...	3,891	.... 25
...	...	...	...	...	...	...	134,045	



## Registered Voters (men) at State Election, 1891.

Wards.	PRECINCTS.							
	1.	2.	3.	4.	5.	6.	7.	8.
1 . . .	390	331	312	379	369	414	430	392
2 . . .	416	318	390	393	353	357	497	. . .
3 . . .	435	464	391	433	464	411	. . .	. . .
4 . . .	392	386	434	448	412	311	. . .	. . .
5 . . .	432	466	428	306	525	420	. . .	. . .
6 . . .	422	402	334	383	334	. . .	. . .	. . .
7 . . .	350	278	250	309	294	. . .	. . .	. . .
8 . . .	240	290	372	359	370	354	. . .	. . .
9 . . .	386	361	370	399	332	. . .	. . .	. . .
10 . . .	377	374	268	329	. . .	. . .	. . .	. . .
11 . . .	346	329	369	381	427	419	311	394
12 . . .	330	302	321	400	286	. . .	. . .	. . .
13 . . .	301	274	315	373	315	370	315	290
14 . . .	360	394	359	323	364	366	341	375
15 . . .	333	324	338	281	379	379	292	402
16 . . .	362	334	354	339	325	373	. . .	. . .
17 . . .	397	351	288	293	318	378	312	269
18 . . .	334	403	373	317	319	349	333	. . .
19 . . .	444	310	329	309	326	380	346	420
20 . . .	379	360	327	303	337	333	354	335
21 . . .	295	365	314	334	373	369	336	328
22 . . .	401	301	282	279	286	320	331	258
23 . . .	294	332	356	327	352	258	321	300
24 . . .	371	326	327	363	326	297	296	342
25 . . .	389	416	428	437	358	420	. . .	. . .
Total . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

Average per cent. of men assessed who registered, 53.70.

# REGISTRATION OF VOTERS.

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## Registered Voters (men) at State Election, 1891.

PRECINCTS.							Total by Wards.	Per cent. as- sessed Polls registered by Wards.	Wards.
10.	11.	12.	13.	14.	15.	16.			
...	...	...	...	...	...	...	3,403	61.14	.. 1
...	...	...	...	...	...	...	2,724	54.03	.. 2
...	...	...	...	...	...	...	2,598	69.39	.. 3
...	...	...	...	...	...	...	2,383	61.24	.. 4
...	...	...	...	...	...	...	2,577	62.47	.. 5
...	...	...	...	...	...	...	1,875	44.83	.. 6
...	...	...	...	...	...	...	1,481	39.07	.. 7
...	...	...	...	...	...	...	1,985	43.71	.. 8
...	...	...	...	...	...	...	1,848	47.29	.. 9
...	...	...	...	...	...	...	1,348	39.80	.. 10
364	391	...	...	...	...	...	4,172	57.70	.. 11
...	...	...	...	...	...	...	1,639	42.03	.. 12
...	...	...	...	...	...	...	2,869	40.67	.. 13
332	324	333	...	...	...	...	4,229	55.40	.. 14
...	...	...	...	...	...	...	2,728	54.86	.. 15
...	...	...	...	...	...	...	2,087	37.26	.. 16
...	...	...	...	...	...	...	2,606	53.26	.. 17
...	...	...	...	...	...	...	2,428	58.01	.. 18
...	...	...	...	...	...	...	3,205	44.54	.. 19
353	314	389	359	...	...	...	4,376	59.73	.. 20
415	384	410	...	...	...	...	4,260	64.88	.. 21
303	...	...	...	...	...	...	3,035	52.73	.. 22
325	339	269	323	175	...	...	4,320	60.97	.. 23
464	330	292	409	330	336	280	5,356	62.27	.. 24
...	...	...	...	...	...	...	2,448	62.91	.. 25
...	...	...	...	...	...	...	71,980		

## Number of Votes Cast for Governor at State Election, 18

Wards.	PRECINCTS.															
	1.		2.		3.		4.		5.		6.		7.		8.	
	Allen.	Russell.	Allen.	Russell.	Allen.	Russell.	Allen.	Russell.	Allen.	Russell.	Allen.	Russell.	Allen.	Russell.	Allen.	Russell.
1.....	31	301	196	81	206	63	248	71	237	84	238	117	114	248	119	205
2.....	40	244	77	190	112	186	82	246	67	223	45	240	111	272	.....	.....
3.....	247	105	149	237	157	164	54	309	95	301	36	310	.....	.....	.....	.....
4.....	102	229	205	95	219	142	138	229	48	282	135	111	.....	.....	.....	.....
5.....	217	127	179	204	42	307	104	155	111	332	118	225	.....	.....	.....	.....
6.....	24	346	43	306	24	235	32	286	60	185	.....	.....	.....	.....	.....	.....
7.....	14	259	24	214	55	140	24	215	66	179	.....	.....	.....	.....	.....	.....
8.....	80	114	66	172	74	237	70	216	59	240	20	284	.....	.....	.....	.....
9.....	126	205	161	124	206	71	188	144	90	164	.....	.....	.....	.....	.....	.....
10.....	205	115	206	117	119	109	97	161	.....	.....	.....	.....	.....	.....	.....	.....
11.....	121	168	123	141	188	123	169	146	105	213	129	207	148	104	220	104
12.....	21	251	24	232	32	232	79	247	101	140	.....	.....	.....	.....	.....	.....
13.....	43	209	8	203	22	243	33	290	25	253	27	282	59	211	45	197
14.....	78	233	66	256	31	282	99	177	114	203	129	176	143	138	170	145
15.....	31	243	34	243	87	183	98	142	122	205	95	210	80	170	103	229
16.....	73	218	130	126	59	208	121	164	25	246	27	285	.....	.....	.....	.....
17.....	209	136	206	106	144	94	138	112	90	183	35	290	88	168	43	197
18.....	204	91	219	120	192	124	171	95	156	118	91	207	88	188	.....	.....
19.....	106	248	51	197	71	193	92	157	105	150	101	191	78	201	92	241
20.....	36	277	44	253	108	167	138	128	43	240	35	244	151	155	70	217
21.....	148	89	112	186	155	105	63	207	92	228	141	161	191	94	194	90
22.....	187	143	87	134	46	173	19	205	49	177	32	231	82	193	74	144
23.....	108	132	132	144	135	179	143	112	161	126	139	84	152	126	70	193
24.....	198	122	161	106	133	129	104	197	55	207	126	114	127	126	168	118
25.....	160	167	252	107	149	203	83	283	115	190	166	196	.....	.....	.....	.....
Totals.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Proportion of men registered who voted for Governor, 84.73 per cent.

# REGISTRATION OF VOTERS.

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## Number of Votes Cast for Governor at State Election, 1891.

PRECINCTS.														Total for Allen.	Total for Russell.	Total for all others.	Total for gubernatorial Candidates.	Wards.
10.		11.		12.		13.		14.		15.		16.						
Allen.	Russell.	Allen.	Russell.	Allen.	Russell.	Allen.	Russell.	Allen.	Russell.	Allen.	Russell.	Allen.	Russell.					
...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,502	1,381	55	2,935	1
...	...	...	...	...	...	...	...	...	...	...	...	...	...	534	1,601	29	2,164	2
...	...	...	...	...	...	...	...	...	...	...	...	...	...	738	1,426	47	2,211	3
...	...	...	...	...	...	...	...	...	...	...	...	...	...	847	1,088	53	1,988	4
...	...	...	...	...	...	...	...	...	...	...	...	...	...	771	1,350	39	2,160	5
...	...	...	...	...	...	...	...	...	...	...	...	...	...	183	1,358	18	1,559	6
...	...	...	...	...	...	...	...	...	...	...	...	...	...	183	1,007	33	1,223	7
...	...	...	...	...	...	...	...	...	...	...	...	...	...	372	1,263	34	1,669	8
...	...	...	...	...	...	...	...	...	...	...	...	...	...	771	708	48	1,527	9
...	...	...	...	...	...	...	...	...	...	...	...	...	...	627	502	31	1,160	10
178	125	180	141	...	...	...	...	...	...	...	...	...	...	1,817	1,586	87	3,490	11
...	...	...	...	...	...	...	...	...	...	...	...	...	...	257	1,102	20	1,379	12
...	...	...	...	...	...	...	...	...	...	...	...	...	...	290	2,130	26	2,446	13
102	186	101	164	151	137	...	...	...	...	...	...	...	...	1,262	2,312	55	3,629	14
...	...	...	...	...	...	...	...	...	...	...	...	...	...	650	1,625	42	2,317	15
...	...	...	...	...	...	...	...	...	...	...	...	...	...	435	1,247	40	1,722	16
...	...	...	...	...	...	...	...	...	...	...	...	...	...	953	1,286	55	2,294	17
...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,121	988	74	2,183	18
...	...	...	...	...	...	...	...	...	...	...	...	...	...	753	1,789	54	2,596	19
192	107	163	96	175	150	78	239	...	...	...	...	...	...	1,286	2,429	80	3,795	20
177	173	233	99	187	156	...	...	...	...	...	...	...	...	1,878	1,698	93	3,699	21
87	161	...	...	...	...	...	...	...	...	...	...	...	...	715	1,735	46	2,496	22
94	164	124	143	126	89	186	78	53	97	...	...	...	...	1,714	1,859	142	3,715	23
235	155	157	125	140	106	225	129	178	106	151	115	118	117	2,418	2,073	106	4,597	24
...	...	...	...	...	...	...	...	...	...	...	...	...	...	925	1,146	38	2,109	25
...	...	...	...	...	...	...	...	...	...	...	...	...	...	23,002	36,639	1,345	60,986	

## Votes Cast for Senator, State Election, 1891.

FIRST SENATORIAL DIST.				SECOND DIST. — <i>Continued</i>			
Ward 1.	Champ- lin.*	Low.	Weston.	Ward 4.	Mace.	Preble.	Reade.
Precinct 1..	81	269		Precinct 1.	6	134	190
“ 2..	181	69	8	“ 2.	21	218	67
“ 3..	209	53	4	“ 3.	13	236	110
“ 4..	224	74	7	“ 4.	4	181	181
“ 5..	227	79	6	“ 5. ....		72	254
“ 6..	225	116	4	“ 6.	10	150	90
“ 7..	109	224	2	Totals....	54	991	892
“ 8..	113	189	5	<b>Ward 5.</b>			
“ 9..	116	191	2	Precinct 1.	11	261	78
Totals....	1,435	1,264	38	“ 2.	6	219	149
Registered voters, 3,403; votes cast, 2,737.				“ 3.	3	59	268
Proportion of men registered who voted, 80.43 per cent.				“ 4.	4	141	111
The balance of this District is composed of Chelsea, Revere, and Winthrop.				“ 5.	9	131	283
* Elected.				“ 6.	9	133	194
<b>SECOND SENATORIAL DIST.</b>				Totals....	42	944	1,083
<b>Ward 3.</b>				Grand totals	188	2,827	3,159
	Mace.	Preble.	Reade.	Registered voters, 7,558; votes cast, 6,126.			
Precinct 1.	12	283	63	Proportion of men registered voted, 81.03 per cent.			
“	7	189	183				
“ 3.	12	177	181				
“ 4.	4	61	290				
“ 5.	6	121	252				
“	1	61	265				
Totals....	42	892	1,184				

## Votes Cast for Senator, State Election, 1891.

## THIRD SENATORIAL DISTRICT.

Ward 6.		Coveney.*	Fletcher.	McGahey.	McLaughlin.
Precinct 1.....		104	2	96	141
" 2.....		154	8	72	102
" 3.....		92	4	75	90
" 4.....		135	7	65	85
" 5.....		68	16	78	77
Totals.....		553	37	386	495

Ward 7.					
Precinct 1.....		14	2	83	188
" 2.....		27	4	74	126
" 3.....		23	20	55	77
" 4.....		23	9	123	75
" 5.....		58	22	109	36
Totals.....		145	57	444	502

Ward 8.					
Precinct 1.....		39	28	64	43
" 2.....		54	21	94	47
" 3.....		68	24	126	70
" 4.....		75	13	114	73
" 5.....		65	19	102	92
" 6.....		41	5	153	70
Totals.....		342	110	653	395
Grand totals.....		1,040	204	1,483	1,392

Registered voters, 5,341; votes cast, 4,119.

Proportion of men registered who voted, 77.12 per cent.

The balance of this District is Ward 8, Cambridge.

\* Elected.

**Votes Cast for Senator, State Election, 1891.****FOURTH SENATORIAL DISTRICT.**

<b>Ward 2.</b>		<b>Elliot.</b>	<b>Kennedy.</b>	<b>Prince.</b>
Precinct 1.....		9	272	
" 2.....		3	192	
" 3.....		10	182	
" 4.....		6	227	
" 5.....		7	197	
" 6.....		3	217	
" 7.....		5	237	
<b>Totals.....</b>		<b>48</b>	<b>1,524</b>	

<b>Ward 12.</b>				
Precinct 1.....		3	204	
" 2.....		9	204	
" 3.....		25	188	
" 4.....		14	210	
" 5.....		8	105	
<b>Totals.....</b>		<b>59</b>	<b>911</b>	

<b>Ward 16.</b>				
Precinct 1.....		7	168	
" 2.....		8	119	
" 3.....		4	165	
" 4.....		11	107	
" 5.....		3	195	
" 6.....		7	233	
<b>Totals.....</b>		<b>40</b>	<b>987</b>	
<b>Grand totals.....</b>		<b>142</b>	<b>3,422</b>	<b>1</b>

Registered voters, 6,450; votes cast, 4,798.

Proportion of men registered who voted, 74.39 per cent.

## Votes Cast for Senator, State Election, 1891.

FIFTH SENATORIAL DIST.				FIFTH SENATORIAL DIST.			
Ward 9.	Marden.	Parkman.	Soley.	Ward 11.	Marden.	Parkman.	Soley.
Precinct 1..	7	182	185	Precinct 1..	8	166	120
" 2..	21	175	90	" 2..	2	164	94
" 3..	21	184	53	" 3..	4	208	93
" 4..	16	197	111	" 4..	8	203	103
" 5..	1	157	74	" 5..	6	106	206
Totals ....	66	895	463	" 6..	7	181	183
				" 7..	13	141	95
				" 8..	17	224	91
Ward 10.				" 9..	16	250	104
Precinct 1..	11	217	90	" 10..	7	191	103
" 2..	9	191	109	" 11..	9	192	119
" 3..	8	130	88				
" 4..	4	98	148	Totals ....	87	2,026	1,311
Totals ....	32	636	485	Grand totals	185	3,557	2,209

Registered voters, 7,368; votes cast, 5,951.

Proportion of men registered who voted, 80.77 per cent.



## Votes Cast for Senator, State Election, 1891.

SIXTH SENATORIAL DIST.			SEVENTH SENATORIAL DIST.			
Ward 13.	Bradley.	McNary.	Ward 17.	Burbank.	McEtrick.	Means.
Precinct 1.....	24	178	Precinct 1..	16	114	207
" 2.....	14	161	" 2..	16	83	208
" 3.....	27	206	" 3..	9	82	144
" 4.....	41	242	" 4..	5	96	144
" 5.....	23	214	" 5..	2	178	77
" 6.....	36	242	" 6..	5	278	37
" 7.....	55	184	" 7..	5	178	75
" 8.....	43	169	" 8..	6	190	41
" 9.....	22	223				
Totals.....	285	1,814	Totals....	64	1,199	933
Ward 14.			Ward 18.			
Precinct 1.....	73	213	Precinct 1..	11	76	205
" 2.....	70	218	" 2..	17	99	220
" 3.....	22	257	" 3..	14	105	201
" 4.....	95	145	" 4..	15	87	160
" 5.....	126	177	" 5..	8	107	150
" 6.....	150	140	" 6..	5	192	91
" 7.....	154	114	" 7..	5	176	88
" 8.....	182	114				
" 9.....	92	180	Totals....	75	842	1,115
" 10.....	114	159				
" 11.....	111	146				
" 12.....	156	121				
Totals.....	1,845	1,984				
Ward 15.			Ward 20.			
Precinct 1.....	31	229	Precinct 1..	5	291	30
" 2.....	50	217	" 2..	8	256	36
" 3.....	87	171	" 3..	8	183	88
" 4.....	105	128	" 4..	12	125	127
" 5.....	189	198	" 5..	1	237	45
" 6.....	83	199	" 6..	.....	249	26
" 7.....	87	157	" 7..	6	159	186
" 8.....	107	213	" 8..	5	211	74
			" 9..	6	159	53
Totals.....	689	1,512	" 10..	5	104	188
Grand totals....	2,319	5,310	" 11..	14	91	160
			" 12..	16	144	173
			" 13..	2	235	70
			Totals....	83	2,444	1,206
			Grand totals,	222	4,485	3,254

Registered voters, 9,826; votes cast, 7,629. Proportion of men registered who voted, 77.64 per cent.

Registered voters, 9,410; votes cast, 7,962. Proportion of men registered who voted, 84.61 per cent.

## Votes Cast for Senator, State Election, 1891.

## EIGHTH SENATORIAL DISTRICT.

Ward 19.					Baker.	Carberry.	Cronan.	Simpson.
inct 1	.	.	.	.	73	212	26	10
" 2	.	.	.	.	46	165	18	2
" 3	.	.	.	.	64	146	26	6
" 4	.	.	.	.	84	131	13	2
" 5	.	.	.	.	113	107	10	4
" 6	.	.	.	.	102	145	13	4
" 7	.	.	.	.	76	164	22	1
" 8	.	.	.	.	86	189	33	11
" 9	.	.	.	.	43	178	26	
Totals	.	.	.	.	687	1,437	187	40

Ward 22.								
inct 1	.	.	.	.	196	110	.	.
" 2	.	.	.	.	76	119	12	2
" 3	.	.	.	.	37	159	15	1
" 4	.	.	.	.	19	185	7	.
" 5	.	.	.	.	49	147	18	.
" 6	.	.	.	.	31	185	31	1
" 7	.	.	.	.	70	174	21	3
" 8	.	.	.	.	63	122	24	7
" 9	.	.	.	.	40	161	6	5
" 10	.	.	.	.	74	164	4	1
Totals	.	.	.	.	655	1,526	138	20

Ward 25.								
inct 1	.	.	.	.	161	126	11	6
" 2	.	.	.	.	257	75	10	7
" 3	.	.	.	.	162	156	13	7
" 4	.	.	.	.	80	214	38	3
" 5	.	.	.	.	125	153	11	5
" 6	.	.	.	.	164	156	9	6
Totals	.	.	.	.	949	880	92	34
Grand totals	.	.	.	.	2,291	3,843	417	94

Registered voters, 8,688.

Votes cast, 6,645.

Proportion of men registered who voted, 76.48 per cent.

**Votes Cast for Senator, State Election, 1891.**  
**NINTH SENATORIAL DISTRICT.**

<b>Ward 21.</b>	<b>Field.</b>	<b>Merrill.</b>	<b>West.</b>	<b>Scattering.</b>	<b>Ward 24.</b>	<b>Field.</b>	<b>Merrill.</b>	<b>West.</b>
Precinct 1..	10	76	144		Precinct 1..	17	112	176
" 2..	8	163	119		" 2..	13	96	153
" 3..	7	94	155		" 3..	11	111	132
" 4..	9	182	69		" 4..	9	170	104
" 5..	8	206	78		" 5..	7	176	62
" 6..	12	142	140		" 6..	8	99	123
" 7..	15	87	187		" 7..	8	97	137
" 8..	12	69	197		" 8..	11	103	172
" 9..	9	100	169		" 9..	6	97	123
" 10..	19	147	173		" 10..	22	130	211
" 11..	10	87	225		" 11..	13	128	135
" 12..	25	135	170		" 12..	11	85	136
Totals ...	144	1,488	1,826		" 13..	26	116	202
					" 14..	21	84	171
					" 15..	17	110	137
					" 16..	14	100	108
					Totals. . .	214	1,814	2,282
					Grand totals.	491	4,941	5,747
<b>Ward 23.</b>					Registered voters, 13,936. Votes cast, 11,180. Proportion of men registered voted, 80.22 per cent.			
Precinct 1..	5	118	108	1				
" 2..	8	116	127					
" 3..	5	161	124					
" 4..	13	89	143					
" 5..	14	111	160					
" 6..	13	67	138					
" 7..	10	115	144					
" 8..	4	185	53					
" 9..	10	160	94					
" 10..	6	150	89					
" 11..	19	130	111					
" 12..	13	83	120					
" 13..	9	73	180					
" 14..	4	81	48					
Totals....	133	1,639	1,639	1				

Registered voters, 13,936.  
Votes cast, 11,180.  
Proportion of men registered  
voted, 80.22 per cent.

## otes Cast for Representatives, State Election, 1891.

## FIRST DISTRICT.

Ward 1.	Burnham.	O'Connor.	Tilden.	Wood.
inct 1.....	35	253	247	35
2.....	180	41	97	182
3.....	208	18	74	202
4.....	232	42	83	231
5.....	235	40	102	218
6.....	215	80	138	227
7.....	104	209	213	109
8.....	118	162	179	119
9.....	113	170	180	125
Totals .....	1,440	1,015	1,313	1,448

## SECOND DISTRICT.

Ward 2.	Demond.	Fales.	Kelly.	Snow.	Sullivan.	Hewitt.
inct 1.....	36	12	274	23	259	1
2.....	53	4	181	46	170	
3.....	87	15	182	72	170	
4.....	73	11	221	58	218	
5.....	61	7	178	57	191	
6.....	42	3	212	32	203	
7.....	105	16	222	87	211	
Totals .....	457	68	1,470	375	1,422	1

## Votes Cast for Representatives, State Election, 1891.

## THIRD DISTRICT.

Ward 3.	Bryant.	Dunton.	Hoisington.	Mahoney.	Starks.	Sundberg.
Precinct 1.....	240	257	21	63	23	
" 2.....	152	182	6	167	17	
" 3.....	164	173	13	106	6	
" 4.....	41	79	7	268	4	
" 5.....	91	128	5	226	5	
" 6.....	29	83	..	234	..	
Totals .....	717	902	52	1,064	55	1,1

## FOURTH DISTRICT.

Ward 4.	Breen.	Oakea.	Pierce.	Turner.	Worth.	Anderson.
Precinct 1.....	190	118	95	183	..	
" 2.....	63	206	177	79		
" 3.....	88	213	216	133	1	
" 4.....	160	159	149	193		
" 5.....	220	89	51	230		
" 6.....	66	151	114	76		
Totals.....	787	936	802	894	1	

## FIFTH DISTRICT.

Ward 5.	Carter.	Dacey.	Martin.	McKenna.	Preaho.	Robinson.	Swettin.
Precinct 1.....	7	74	5	58	261	250	
" 2.....	10	148	4	132	235	203	
" 3.....	..	239	..	233	116	59	
" 4.....	3	113	4	98	155	129	
" 5.....	3	278	4	257	171	132	
" 6.....	9	184	9	173	150	113	
Totals.....	32	1,036	26	951	1,088	886	

## Votes Cast for Representatives, State Election, 1891.

## SIXTH DISTRICT.

Ward 6.		Crowley.	Fallon.
precinct 1	. . . . .	294	278
" 2	. . . . .	261	252
" 3	. . . . .	207	221
" 4	. . . . .	245	232
" 5	. . . . .	153	128
Totals	. . . . .	1,160	1,111

## SEVENTH DISTRICT.

Ward 7.		Brogan.	Clark.	Doherty.	Connolly.
precinct 1	. . . . .	118	180	165	1
" 2	. . . . .	158	100	100	
" 3	. . . . .	76	90	101	
" 4	. . . . .	128	141	102	
" 5	. . . . .	134	128	67	
Totals	. . . . .	614	639	535	1

## EIGHTH DISTRICT.

Ward 8.		Breen.	Donovan.	Gilbride.	Hutchinson.	Pike.	Wetherbee.
precinct 1	. .	78	64	76	61	16	14
" 2	. .	133	49	131	78	9	8
" 3	. .	199	72	176	69	9	5
" 4	. .	191	55	190	49	4	2
" 5	. .	183	51	180	56	3	4
" 6	. .	236	22	249	25	6	4
Totals	. .	1,020	313	1,002	338	47	37

**Votes Cast for Representatives, State Election, 1891.****NINTH DISTRICT.**

<b>Ward 9.</b>		<b>Harris.</b>	<b>Leary.</b>	<b>McKenna.</b>	<b>Meyer.</b>	<b>Scofield.</b>	<b>Tobias.</b>	<b>Scattering.</b>
Precinct 1 . . . .		144	115	104	214	6	6	
" 2 . . . .		141	76	89	166	17	21	
" 3 . . . .		161	56	71	155	23	22	
" 4 . . . .		147	84	114	199	24	15	
" 5 . . . .		69	140	123	76	4	7	
<b>Totals . . . .</b>		<b>662</b>	<b>471</b>	<b>501</b>	<b>810</b>	<b>74</b>	<b>71</b>	

**TENTH DISTRICT.**

<b>Ward 10.</b>		<b>Gray.</b>	<b>Harding.</b>	<b>Howes.</b>	<b>Parker.</b>	<b>Sprague.</b>	<b>Storer.</b>
Precinct 1 . .		13	83	15	208	206	76
" 2 . .		11	102	7	176	180	87
" 3 . .		8	80	8	124	129	72
" 4 . .		7	124	4	94	94	127
<b>Totals . .</b>		<b>39</b>	<b>389</b>	<b>34</b>	<b>602</b>	<b>609</b>	<b>362</b>

**ELEVENTH DISTRICT.**

<b>Ward 11.</b>		<b>Ainworth.</b>	<b>Codman.</b>	<b>Dyar.</b>	<b>Gaston.</b>	<b>Kelley.</b>	<b>Olmstead.</b>	<b>Horne.</b>
Precinct 1 . . . .		1	189	121	137	3	124	
" 2 . . . .		1	99	129	116	3	126	
" 3 . . . .		6	83	185	93	5	181	
" 4 . . . .		4	121	166	113	3	158	
" 5 . . . .		13	184	94	143	7	89	
" 6 . . . .		7	173	114	170	4	98	
" 7 . . . .		17	84	140	79	16	116	
" 8 . . . .		17	89	212	85	11	203	
" 9 . . . .		9	95	236	97	13	208	
" 10 . . . .		9	101	172	108	2	156	
" 11 . . . .		11	112	175	113	8	163	
<b>Totals . . . .</b>		<b>95</b>	<b>1,280</b>	<b>1,744</b>	<b>1,254</b>	<b>75</b>	<b>1,622</b>	



## Votes Cast for Representatives, State Election, 1891.

## TWELFTH DISTRICT.

Ward 12.	Bond.	Coolidge.	Hefernin.	Jordan.	MacDonald.	Sullivan.	Toomey.
precinct 1.....	18	11	171	1	1	88	172
" 2.....	24	22	171	7	3	68	156
" 3.....	33	22	179	6	6	38	176
" 4.....	66	62	190	14	5	42	200
" 5.....	97	96	113	10	10	11	103
Totals.....	238	213	824	38	25	247	807

## THIRTEENTH DISTRICT.

Ward 13.	Foley.	Geary.	Horgan.	McCarthy.	Quinn.	McKenna.
precinct 1.....	80	66	56	122	79	1
" 2.....	40	73	28	129	80	
" 3.....	102	74	43	126	100	
" 4.....	57	105	61	177	181	
" 5.....	60	80	94	132	96	
" 6.....	51	115	72	150	139	
" 7.....	55	96	46	125	112	
" 8.....	29	87	47	116	123	
" 9.....	49	112	62	132	117	
Totals.....	523	808	509	1,209	1,027	1



# Votes Cast for Representatives, State Election, 1891

## FOURTEENTH DISTRICT.

Ward 14.		Blanchard.	Bronwich.	Chance.	Evans.	McSolla.	Walworth.
Precinct	1.....	12	74	191	5	185	72
"	2.....	5	93	201	2	209	68
"	3.....	5	50	197	1	256	37
"	4.....	17	79	119	9	148	95
"	5.....	9	111	191	7	156	122
"	6.....	16	128	163	14	113	148
"	7.....	15	126	121	5	99	147
"	8.....	14	180	112	5	91	180
"	9.....	9	85	171	1	175	84
"	10.....	7	110	153	6	153	97
"	11.....	18	97	134	10	131	101
"	12.....	20	133	115	14	100	143
Totals.....		147	1,266	1,868	79	1,816	1,294

## FIFTEENTH DISTRICT.

Ward 15.		Bail.	Casey.	Lund.	Lench.
Precinct	1.....	28	229	19	2
"	2.....	41	209	32	2
"	3.....	91	165	70	1
"	4.....	106	124	77	1
"	5.....	133	192	100	1
"	6.....	82	193	72	1
"	7.....	82	141	67	1
"	8.....	106	202	86	2
Totals.....		669	1,455	523	1,4



# **Votes Cast for Representatives, State Election, 189**

## **EIGHTEENTH DISTRICT.**

<b>Ward 18.</b>	<b>Blanchard.</b>	<b>Laughton.</b>	<b>Perkins.</b>	<b>Thomes.</b>
Precinct 1.....	198	57	192	48
" 2.....	227	84	211	73
" 3.....	194	90	200	71
" 4.....	161	72	170	55
" 5.....	148	85	155	74
" 6.....	80	175	90	138
" 7.....	82	158	87	119
<b>Totals.....</b>	<b>1,090</b>	<b>721</b>	<b>1,105</b>	<b>578</b>

## **NINETEENTH DISTRICT.**

<b>Ward 19.</b>	<b>Bryant.</b>	<b>Dolan.</b>	<b>Fallon.</b>	<b>Grohe.</b>	<b>Grossman.</b>	<b>Lyons.</b>	<b>Noonan.</b>	<b>Thompson.</b>
Precinct 1.....	110	125	116	6	14	108	64	67
" 2.....	63	81	83	3	10	89	70	35
" 3.....	69	129	36	4	7	101	48	58
" 4.....	95	89	41	7	14	69	49	77
" 5.....	118	78	33	5	14	52	41	110
" 6.....	119	92	42	2	21	84	51	85
" 7.....	82	102	100	3	20	63	62	50
" 8.....	87	131	108	8	44	83	54	72
" 9.....	43	82	110	2	8	106	39	46
<b>Totals.....</b>	<b>786</b>	<b>909</b>	<b>669</b>	<b>40</b>	<b>152</b>	<b>755</b>	<b>478</b>	<b>600</b>

## otes Cast for Representatives, State Election, 1891.

## TWENTIETH DISTRICT.

Ward 20.	Eldridge.	Golding.	Hoar.	Ward.
inct 1.....	35	268	256	36
2.....	41	228	214	43
3.....	96	153	143	93
4.....	137	101	91	136
5.....	40	232	210	41
6.....	31	228	222	35
7.....	124	134	132	145
8.....	67	192	192	74
9.....	48	141	163	50
10.....	178	84	80	172
11.....	181	64	67	163
12.....	177	123	116	166
13.....	67	219	211	57
totals.....	1,222	2,167	2,097	1,211

## TWENTY-FIRST DISTRICT.

Ward 21.	Brown, B. F.	Brown, E. E.	May.	Mead.	Norton.	Wilson.
inct 1.....	138	17	66	65	122	11
2.....	121	14	152	144	109	7
3.....	160	9	85	79	134	9
4.....	73	8	167	165	68	6
5.....	86	10	189	174	82	5
6.....	140	14	129	123	124	10
7.....	191	25	72	70	170	13
8.....	199	13	60	55	185	11
9.....	167	14	79	76	166	10
10.....	177	12	135	121	178	15
11.....	224	13	77	72	209	9
12.....	185	17	124	122	168	10
totals.....	1,861	166	1,335	1,266	1,715	116

**Votes Cast for Representatives, State Election, 188****TWENTY-SECOND DISTRICT.**

<b>Ward 22.</b>			
		<b>Fox.</b>	<b>Henderson.</b>
<b>Precinct 1</b> .....		210	4
" <b>2</b> .....		110	2
" <b>3</b> .....		67	4
" <b>4</b> .....		32	.....
" <b>5</b> .....		58	1
" <b>6</b> .....		46	5
" <b>7</b> .....		96	4
" <b>8</b> .....		81	7
" <b>9</b> .....		45	7
" <b>10</b> .....		90	3
<b>Totals</b> .....		835	37

**TWENTY-THIRD DISTRICT.**

Ward 23.		Baker.	Charles.	Damrell.	McDonald.	Ticknor.
Precinct	1.....	126	101	9	85	91
"	2.....	133	122	5	91	100
"	3.....	134	151	4	125	96
"	4.....	141	106	11	63	135
"	5.....	163	123	13	73	144
"	6.....	126	78	14	58	140
"	7.....	124	132	11	94	144
"	8.....	62	165	1	176	50
"	9.....	88	153	.....	140	93
"	10.....	88	135	9	128	88
"	11.....	127	121	19	111	99
"	12.....	134	72	12	55	114
"	13.....	168	83	7	46	173
"	14.....	45	73	6	70	43
Totals .....		1,659	1,615	121	1,315	1,510

tes Cast for Representatives, State Election, 1891.

TWENTY-FOURTH DISTRICT.

Ward 24.	Bliss.	Brown.	Clark.	Dwyer.	Farr.	Galvin.
ct 1.....	183	21	182	85	9	71
2.....	155	15	152	81	27	54
3.....	143	7	135	90	7	78
4.....	112	13	105	136	10	133
5.....	58	6	53	157	6	142
6.....	129	19	123	67	11	67
7.....	118	18	118	91	7	77
8.....	156	22	168	84	12	71
9.....	128	7	134	73	2	65
10.....	210	20	225	105	8	102
11.....	149	15	146	86	8	85
12.....	131	16	132	73	8	63
13.....	204	19	189	98	17	89
14.....	183	21	170	55	13	59
15.....	142	18	139	87	14	84
16.....	109	13	108	88	6	83
la .....	2,310	250	2,279	1,456	165	1,323

TWENTY-FIFTH DISTRICT.

Ward 25.	Fuller.	Warren.
ct 1.....	170	136
2.....	249	101
3.....	146	193
4.....	121	219
5.....	114	177
6.....	158	188
la.....	958	1,014

**Number of Men Registered who Voted**  
 (AS PER WARD OFFICERS' RETURNS OF NAMES CHECKED  
 ON VOTING-LIST) AT STATE ELECTION, 1891,  
 BY WARDS.

Wards.	Number Registered.	Votes Cast.	Per cent. by Ward.
1.....	3,403	2,997	88
2.....	2,724	2,290	84
3.....	2,598	2,270	87
4.....	2,383	2,073	87
5.....	2,577	2,137	83
6.....	1,875	1,649	88
7.....	1,481	1,305	88
8.....	1,985	1,702	86
9.....	1,848	1,570	85
10.....	1,348	1,186	88
11.....	4,172	3,572	86
12.....	1,639	1,408	86
13.....	2,869	2,504	87
14.....	4,229	3,713	88
15.....	2,728	2,370	87
16.....	2,087	1,679	80
17.....	2,606	2,360	91
18.....	2,428	2,154	89
19.....	3,205	2,682	84
20.....	4,376	3,904	89
21.....	4,260	3,742	88
22.....	3,035	2,588	85
23.....	4,320	3,786	88
24.....	5,356	4,689	87
25.....	2,448	2,166	89
Totals.....	71,980	62,496	

Average per cent. of men registered who voted, 86.82.

**MUNICIPAL ELECTION,  
1891.**



## Registered Voters (Men) at Municipal Election, 188

Wards.	PRECINCTS.							
	1.	2.	3.	4.	5.	6.	7.	8.
1 . . .	395	334	313	385	375	419	442	401
2 . . .	428	326	403	403	362	369	505	. . .
3 . . .	435	468	396	437	470	421	. . .	. . .
4 . . .	399	394	441	461	417	320	. . .	. . .
5 . . .	437	470	437	309	527	428	. . .	. . .
6 . . .	433	409	341	394	338	. . .	. . .	. . .
7 . . .	350	282	259	312	299	. . .	. . .	. . .
8 . . .	244	292	375	363	377	360	. . .	. . .
9 . . .	391	362	374	404	332	. . .	. . .	. . .
10 . . .	383	378	272	356	. . .	. . .	. . .	. . .
11 . . .	347	331	372	384	432	422	318	397
12 . . .	330	305	322	406	294	. . .	. . .	. . .
13 . . .	307	276	320	380	319	378	320	292
14 . . .	364	402	362	328	374	371	347	333
15 . . .	336	325	342	283	380	333	296	410
16 . . .	367	339	358	342	331	381	. . .	. . .
17 . . .	404	361	299	303	334	398	338	294
18 . . .	338	406	381	320	328	363	362	. . .
19 . . .	453	323	337	313	332	398	355	428
20 . . .	398	370	336	311	349	344	359	344
21 . . .	303	369	315	337	380	373	340	332
22 . . .	405	306	291	280	295	325	334	258
23 . . .	309	342	369	337	358	263	327	313
24 . . .	377	331	331	373	333	300	301	343
25 . . .	397	418	434	452	368	426	. . .	. . .
Total . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

Average per cent. of men assessed who registered, 54.74.

## Registered Voters (Men) at Municipal Election, 1891.

PRECINCTS.						Totals by Wards.	Wards.
11.	12.	13.	14.	15.	16.		
...	...	...	...	...	...	3,463	.... 1
...	...	...	...	...	...	2,796	.... 2
...	...	...	...	...	...	2,627	.... 3
...	...	...	...	...	...	2,432	.... 4
...	...	...	...	...	...	2,608	.... 5
...	...	...	...	...	...	1,915	.... 6
...	...	...	...	...	...	1,502	.... 7
...	...	...	...	...	...	2,011	.... 8
...	...	...	...	...	...	1,863	.... 9
...	...	...	...	...	...	1,889	.... 10
402	...	...	...	...	...	4,219	.... 11
...	...	...	...	...	...	1,657	.... 12
...	...	...	...	...	...	2,912	.... 13
326	337	...	...	...	...	4,300	.... 14
...	...	...	...	...	...	2,755	.... 15
...	...	...	...	...	...	2,118	.... 16
...	...	...	...	...	...	2,731	.... 17
...	...	...	...	...	...	2,498	.... 18
...	...	...	...	...	...	3,288	.... 19
316	398	369	...	...	...	4,489	.... 20
387	414	...	...	...	...	4,312	.... 21
...	...	...	...	...	...	3,090	.... 22
363	280	328	177	...	...	4,463	.... 23
335	297	418	336	342	284	5,440	.... 24
...	...	...	...	...	...	2,495	.... 25
...	...	...	...	...	...	73,373	

## Number of Votes Cast for Mayor at City Election, 1891

Wards.	PRECINCTS.																	
	1.		2.		3.		4.		5.		6.		7.		8.		9.	
	Allen.	Mathews.	Allen.	Mathews.	Allen.	Mathews.	Allen.	Mathews.	Allen.	Mathews.	Allen.	Mathews.	Allen.	Mathews.	Allen.	Mathews.	Allen.	Mathews.
1.....	25	279	170	82	181	51	217	67	220	66	206	105	96	234	105	228	95	...
2.....	39	218	60	186	91	193	67	230	50	219	40	236	92	272	...	...	...	...
3.....	215	86	118	234	131	144	47	317	76	282	27	804	...	...	...	...	...	...
4.....	91	210	187	92	202	136	129	234	88	311	123	100	...	...	...	...	...	...
5.....	196	108	161	195	88	309	94	133	90	281	89	213	...	...	...	...	...	...
6.....	30	330	44	284	26	241	24	280	40	182	...	...	...	...	...	...	...	...
7.....	17	244	22	200	34	118	18	200	49	149	...	...	...	...	...	...	...	...
8.....	60	101	55	155	56	228	42	220	47	218	15	280	...	...	...	...	...	...
9.....	98	199	129	88	170	65	138	118	60	166	...	...	...	...	...	...	...	...
10.....	176	88	193	42	84	91	80	173	...	...	...	...	...	...	...	...	...	...
11.....	79	143	85	99	126	86	119	119	86	200	82	183	118	76	178	78	175	...
12.....	13	269	18	222	17	231	64	238	83	120	...	...	...	...	...	...	...	...
13.....	20	230	10	211	16	242	27	287	21	252	24	284	45	206	31	201	11	...
14.....	52	223	58	252	22	269	74	161	107	177	115	159	123	124	163	128	65	...
15.....	18	220	27	216	87	163	82	122	108	172	72	206	74	150	84	216	...	...
16.....	59	211	114	109	51	194	101	133	30	220	27	270	...	...	...	...	...	...
17.....	184	104	185	88	124	83	120	109	74	195	38	299	68	175	34	209	...	...
18.....	162	91	195	95	177	115	200	32	141	96	86	207	93	204	...	...	...	...
19.....	87	254	50	217	61	184	77	158	105	126	115	182	76	207	82	238	48	...
20.....	25	309	44	276	87	181	108	142	37	252	32	246	147	136	57	216	47	...
21.....	135	79	107	164	142	90	66	202	79	212	125	152	174	84	173	77	164	...
22.....	133	119	31	140	88	176	22	200	45	180	22	228	77	196	73	131	47	...
23.....	90	148	119	144	116	170	129	92	134	107	109	75	131	107	60	207	77	...
24.....	164	131	139	102	122	122	96	178	52	216	125	102	123	107	161	102	132	...
25.....	127	174	195	102	110	197	61	311	90	217	155	196	...	...	...	...	...	...
Totals.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scattering.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Grand total.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

Proportion of men registered who voted for Mayor, 74.99 per cent.

## Number of Votes Cast for Mayor at City Election, 1891.

PRECINCTS.												Total for Allen.	Total for Matthews.	Total for Shapleigh, by Wards.	Total for Mayoralty Candidates.	Wards.
11.	12.	13.	14.	15.	16.	Allen.	Matthews.	Allen.	Matthews.	Allen.	Matthews.					
11.	12.	13.	14.	15.	16.	Allen.	Matthews.	Allen.	Matthews.	Allen.	Matthews.	1,315	1,329	29	2,673	1
...	...	...	...	...	...	...	...	...	...	...	...	439	1,554	25	2,018	2
...	...	...	...	...	...	...	...	...	...	...	...	614	1,367	25	2,006	3
...	...	...	...	...	...	...	...	...	...	...	...	770	1,083	26	1,879	4
...	...	...	...	...	...	...	...	...	...	...	...	658	1,239	27	1,924	5
...	...	...	...	...	...	...	...	...	...	...	...	163	1,317	7	1,487	6
...	...	...	...	...	...	...	...	...	...	...	...	140	911	8	1,059	7
...	...	...	...	...	...	...	...	...	...	...	...	275	1,202	13	1,490	8
...	...	...	...	...	...	...	...	...	...	...	...	595	606	35	1,236	9
...	...	...	...	...	...	...	...	...	...	...	...	533	394	18	945	10
81	100	...	...	...	...	...	...	...	...	...	...	1,299	1,261	48	2,608	11
...	...	...	...	...	...	...	...	...	...	...	...	195	1,080	17	1,292	12
...	...	...	...	...	...	...	...	...	...	...	...	205	2,169	9	2,383	13
98	148	113	129	...	...	...	...	...	...	...	...	1,061	2,135	33	3,229	14
...	...	...	...	...	...	...	...	...	...	...	...	552	1,468	15	2,035	15
...	...	...	...	...	...	...	...	...	...	...	...	382	1,136	20	1,538	16
...	...	...	...	...	...	...	...	...	...	...	...	827	1,262	68	2,157	17
...	...	...	...	...	...	...	...	...	...	...	...	1,054	840	33	1,927	18
...	...	...	...	...	...	...	...	...	...	...	...	700	1,777	18	2,495	19
41	68	145	137	64	234	...	...	...	...	...	...	1,084	2,437	58	3,579	20
83	83	166	181	...	...	...	...	...	...	...	...	1,674	1,489	57	3,220	21
...	...	...	...	...	...	...	...	...	...	...	...	629	1,731	15	2,375	22
04	162	116	83	165	73	44	100	...	...	...	...	1,467	1,810	66	3,343	23
43	124	128	94	185	120	160	102	126	96	97	86	2,163	1,914	76	4,153	24
...	...	...	...	...	...	...	...	...	...	...	...	738	1,197	32	1,967	25
...	...	...	...	...	...	...	...	...	...	...	...	19,532	34,708	778	55,018	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	55,019	

# Votes Cast for Aldermen, City Election, 1891.

DISTRICT NO. 1.				DISTRICT NO. 2.			
Ward 1.	Fales.	Sullivan.	Witt.	Ward 3.	Gammans.	Hall.	Mitchell.
Precinct 1..	9	264	24	Precinct 1..	243	18	50
" 2..	2	76	179	" 2..	156	6	188
" 3..	6	55	183	" 3..	160	9	112
" 4..	3	75	212	" 4..	70	.....	290
" 5..	6	62	220	" 5..	97	4	255
" 6..	9	107	197	" 6..	39	3	293
" 7..	3	220	101	Totals....	765	40	1,188
" 8..	4	223	103	Ward 4.			
" 9..	4	223	82	Precinct 1..	133	6	167
Totals....	46	1,305	1,301	" 2..	221	10	53
				" 3..	223	37	77
				" 4..	153	.....	212
				" 5..	67	3	274
				" 6..	136	7	77
				Totals....	933	63	860
Ward 2.				Ward 5.			
Precinct 1..	71	172	39	Precinct 1..	242	12	52
" 2..	3	173	75	" 2..	208	10	133
" 3..	4	178	104	" 3..	81	2	262
" 4..	4	216	82	" 4..	128	4	92
" 5..	6	206	58	" 5..	150	3	222
" 6..	1	233	43	" 6..	134	7	166
" 7..	6	275	87	Totals....	943	38	927
Totals....	95	1,453	488	Grand totals,	2,641	141	2,975
Grand totals,	141	2,758	1,789				
Registered voters, 6,259.				Registered voters, 7,667.			
Votes cast, 4,688.				Votes cast, 5,758.			
Proportion of men registered				Proportion of men registered who			
who voted, 74.90 per cent.				75.10 per cent.			

## Votes Cast for Aldermen, City Election, 1891.

DISTRICT NO. 3.			DISTRICT NO. 4.			
Ward 6.	Atwood.	Keenan.	Ward 9.	Boynton	Fottler.	Howes.
Precinct 1.....	27	303	Precinct 1. . .	73	186	6
2.....	42	267	" 2....	75	140	10
3.....	20	227	" 3....	71	164	11
4.....	23	257	" 4....	120	139	10
5.....	55	168	" 5....	157	61	2
Totals.....	167	1,222	Totals.....	496	690	39
Ward 7.			Ward 10.			
Precinct 1.....	21	199	Precinct 1....	46	212	8
2.....	19	180	" 2....	64	167	6
3.....	40	94	" 3....	52	116	7
4.....	21	180	" 4....	155	90	9
5.....	52	140	Totals.....	317	585	30
Totals.....	153	793	Grand totals.	813	1,275	69
Ward 8.			Registered voters, 3,252. Votes cast, 2,157. Proportion of men registered who voted, 66.33 per cent.			
Precinct 1.....	68	85				
2.....	53	149				
3.....	57	214				
4.....	41	211				
5.....	51	203				
6.....	16	272				
Totals.....	286	1,134				
Grand totals.....	606	3,149				
Registered voters, 5,428. Votes cast, 3,755. Proportion of men registered who voted, 69.18 per cent.						

## Votes Cast for Aldermen, City Election, 1891.

DISTRICT NO. 5.				DISTRICT NO. 6.			
Ward 11.	Ainsworth.	Bird.	Rust.	Ward 12.	Leary.	Maloney.	Moore.
Precinct 1..	1	32	190	Precinct 1..	159	2	100
" 2..	2	20	165	" 2..	129	5	98
" 3..	1	23	189	" 3..	121	2	110
" 4..	2	41	194	" 4..	132	4	117
" 5..	8	186	93	" 5..	78	1	49
" 6..	6	175	87				
" 7..	9	62	117	Totals....	619	14	469
" 8..	8	66	190				
" 9..	6	80	181	Ward 13.			
" 10..	1	61	153	Precinct 1..	125	8	116
" 11..	5	64	162	" 2..	105	6	113
Totals....	49	810	1,721	" 3..	128	2	127
				" 4..	139	2	167
				" 5..	119	9	140
				" 6..	147	2	152
				" 7..	114	1	119
				" 8..	92	2	125
				" 9..	120	4	137
				Totals,...	1,089	81	1,196
				Grand totals,	1,708	45	1,665
Ward 16.							
Precinct 1..	8	193	60				
" 2..	6	108	115				
" 3..	8	179	57				
" 4..	4	130	99				
" 5..	1	212	28				
" 6..	2	257	27				
Totals....	19	1,079	386				
Grand totals,	68	1,889	2,107				
Registered voters, 6,337. Votes cast, 4,064. Proportion of men registered who voted, 64.13 per cent.				Registered voters, 4,569. Votes cast, 3,624. Proportion of men registered voted, 79.32 per cent.			



## Votes Cast for Aldermen, City Election, 1891.

DISTRICT NO. 7.					DISTRICT NO. 8.			
Ward 14.	Blanchard.	Bond.	Flood.	Lynch.	Ward 17.	Collins.	Lewis.	O'Mealey.
Precinct 1..	4	48	226		Precinct 1..	11	200	84
2..	5	50	254		" 2..	6	202	67
3..	1	22	263		" 3..	5	139	69
4..	6	58	172		" 4..	7	118	107
5..	5	98	187		" 5..	2	66	204
6..	10	97	177		" 6..	5	51	287
7..	5	103	142		" 7..	1	69	167
8..	6	115	160		" 8..	4	39	206
9..	7	48	208		Totals....	41	884	1,191
10..	6	65	179		Ward 18.			
11..		80	162		Precinct 1..	2	213	47
12..	6	102	139		" 2..	6	225	58
Totals ....	66	886	2,269		" 3..	12	205	77
Ward 15.					" 4..	4	185	50
Precinct 1..	3	25	214		" 5..	5	157	81
2..	1	28	210	1	" 6..	3	107	182
3..	5	74	176		" 7..	3	106	191
4..	7	70	129		Totals....	85	1,198	686
5..	2	104	178		Grand totals	76	2,082	1,877
6..	6	60	218					
7..	2	63	156					
8..	3	71	230					
Totals ....	29	495	1,511	1				
Grand totals,	95	1,381	3,780	1				

Registered voters, 7,055; votes cast, 5,257.

Proportion of men registered who voted, 74.51 per cent.

Registered voters, 5,229; votes cast, 4,035.

Proportion of men registered who voted, 77.16 per cent.



## Votes Cast for Aldermen, City Election, 1891.

## DISTRICT NO. 9.

Ward 19.	Folsom.	Henderson.	Maguire.	Regan.
Precinct 1.....	133	2	99	1
" 2.....	65	2	75	1
" 3.....	84	5	84	
" 4.....	108	7	62	
" 5.....	131	4	62	
" 6.....	129	3	62	
" 7.....	95		86	1
" 8.....	120	3	126	
" 9.....	81	2	100	
Totals.....	946	28	756	7

Ward 22.				
Precinct 1.....	210	4	17	
" 2.....	109	1	55	
" 3.....	84	4	68	
" 4.....	54		102	
" 5.....	77	17	90	
" 6.....	69	2	105	
" 7.....	135	3	85	
" 8.....	120	4	53	
" 9.....	96	1	81	
" 10.....	145	2	57	
Totals.....	1,099	38	713	5
Grand totals.....	2,045	66	1,469	1,2

Registered voters, 6,378.

Votes cast, 4,848.

Proportion of men registered who voted, 76.01 per cent.

## Votes Cast for Aldermen, City Election, 1891.

## DISTRICT NO. 10.

Ward 20.	Dever.	McIntire.	Scott.	Wiggin.	Wilder.	Merrill.
Precinct 1.....	298	2	7	25	1	
" 2.....	265	1	20	21	4	
" 3.....	153	3	55	40	15	
" 4.....	115	1	29	105	5	
" 5.....	250	2	6	27		
" 6.....	246	2	6	22	2	
" 7.....	124	4	12	146	1	
" 8.....	205	2	15	56	1	
" 9.....	146	7	5	47	4	
" 10.....	63	7	25	138	7	
" 11.....	42	5	15	136	18	
" 12.....	107	4	18	157	4	
" 13.....	209	1	16	72	1	
Totals.....	2,223	41	229	992	58	

Ward 21.						
Precinct 1.....	60	3	43	101	6	
" 2.....	128	5	36	94	2	
" 3.....	57	5	43	124	5	
" 4.....	164	8	33	56	3	1
" 5.....	196	2	26	67	7	
" 6.....	128	5	48	103	1	
" 7.....	54	6	39	159	3	
" 8.....	36	2	53	157	3	
" 9.....	64	6	55	126	4	
" 10.....	109	10	46	133	4	
" 11.....	52	5	68	146	1	
" 12.....	91	6	51	144	5	
Totals....	1,139	63	541	1,410	44	1
Grand totals.....	3,362	104	770	2,402	102	1

Registered voters, 8,601.

Votes cast, 6,741.

Proportion of men registered who voted, 76.59 per cent.

### Votes Cast for Aldermen, City Election, 1891.

DISTRICT No. 11.				DISTRICT No. 12.			
Ward 23.	Farwell.	Harvey.	Lee.	Ward 24.	Eddy.	Hall.	Hayes.
Precinct 1..	2	98	138	Precinct 1..	111	87	106
" 2..	5	129	129	" 2..	96	88	58
" 3..	3	120	162	" 3..	86	98	64
" 4..	11	127	89	" 4..	68	157	48
" 5..	8	142	85	" 5..	75	127	71
" 6..	9	98	79	" 6..	141	68	21
" 7..	4	125	110	" 7..	111	82	38
" 8..	....	63	203	" 8..	168	67	27
" 9..	8	79	179	" 9..	125	77	20
" 10..	1	69	158	" 10..	212	103	44
" 11..	13	103	159	" 11..	132	97	40
" 12..	8	97	98	" 12..	110	64	46
" 13..	11	120	112	" 13..	176	99	35
" 14..	4	40	98	" 14..	134	101	28
Totals ....	87	1,410	1,799	" 15..	93	103	28
Ward 25.				" 16..	62	80	41
Precinct 1..	6	105	187	Grand totals,	1,900	1,493	715
" 2..	9	160	136	Registered voters, 5,440; votes cast, 4,165. Proportion of men registered voted, 76.56 per cent.			
" 3..	7	93	218				
" 4..	8	58	307				
" 5..	4	62	247				
" 6..	.....	126	225				
Totals ....	34	604	1,320				
Grand totals,	121	2,014	3,119				

Registered voters, 6,958; votes cast, 5,254.

Proportion of men registered who voted, 75.51 per cent.

**Votes Cast for Members of Common Council, City  
Election, 1891.**

<b>Ward 1.</b>	<b>Bates.</b>	<b>Campbell.</b>	<b>Cochran.</b>	<b>Lambert.</b>	<b>McDougall.</b>	<b>Stalker.</b>	<b>Turner.</b>
Precinct 1 . . . .	30	223	37	68	221	43	217
" 2 . . . .	196	57	175	58	29	170	41
" 3 . . . .	204	61	179	35	19	183	17
" 4 . . . .	243	72	214	36	30	222	30
" 5 . . . .	229	77	211	50	27	187	33
" 6 . . . .	222	91	211	59	64	196	65
" 7 . . . .	99	192	97	74	181	91	169
" 8 . . . .	116	165	108	76	167	120	185
" 9 . . . .	99	159	79	66	143	85	233
<b>Totals . . . .</b>	<b>1,438</b>	<b>1,097</b>	<b>1,311</b>	<b>522</b>	<b>881</b>	<b>1,297</b>	<b>990</b>

<b>Ward 2.</b>	<b>Arthur.</b>	<b>Donovan.</b>	<b>Flynn.</b>	<b>Grueby.</b>	<b>Lane.</b>	<b>Smith.</b>
Precinct 1 . .	240	237	219	62	68	47
" 2 . .	150	173	184	70	66	59
" 3 . .	138	149	191	99	95	80
" 4 . .	179	207	201	104	79	70
" 5 . .	185	198	197	61	60	51
" 6 . .	197	215	217	52	46	39
" 7 . .	208	227	226	120	108	108
<b>Totals . .</b>	<b>1,297</b>	<b>1,406</b>	<b>1,435</b>	<b>568</b>	<b>522</b>	<b>454</b>

**Votes Cast for Members of Common Council, City  
Election, 1891.**

<b>Ward 3.</b>	<b>Alden.</b>	<b>Litchfield.</b>	<b>McGinnis.</b>	<b>O'Hara.</b>	<b>Tierney.</b>	<b>All others.</b>
Precinct 1 . .	248	257	72	48	53	
" 2 . .	139	145	219	170	197	
" 3 . .	149	148	134	114	124	
" 4 . .	58	58	285	291	294	
" 5 . .	101	104	244	244	254	
" 6 . .	38	40	279	265	286	
<b>Totals . .</b>	<b>733</b>	<b>752</b>	<b>1,233</b>	<b>1,132</b>	<b>1,208</b>	

<b>Ward 4.</b>	<b>Bean.</b>	<b>Boardman.</b>	<b>Cressy.</b>	<b>Fitzpatrick.</b>	<b>Forbush.</b>	<b>Marnell.</b>	<b>Perkins.</b>	<b>Wagoner.</b>
Precinct 1 . .	23	96	105	30	175	138	91	
" 2 . .	62	204	207	8	67	49	167	
" 3 . .	54	187	216	5	130	76	160	
" 4 . .	38	119	148	27	210	162	111	
" 5 . .	13	44	65	58	234	206	44	
" 6 . .	38	113	125	12	89	56	95	
<b>Totals . .</b>	<b>228</b>	<b>763</b>	<b>866</b>	<b>140</b>	<b>905</b>	<b>687</b>	<b>668</b>	

<b>Ward 5.</b>	<b>Graham.</b>	<b>Harper.</b>	<b>Hurley.</b>	<b>Morse.</b>	<b>O'Brien.</b>	<b>Wagoner.</b>
Precinct 1 . .	75	234	69	206	63	2
" 2 . .	148	194	172	164	158	1
" 3 . .	253	72	270	41	292	
" 4 . .	105	124	106	104	109	
" 5 . .	252	129	229	101	222	
" 6 . .	190	116	180	95	193	1
<b>Totals . .</b>	<b>1,023</b>	<b>869</b>	<b>1,026</b>	<b>711</b>	<b>1,087</b>	<b>6</b>

**Votes Cast for Members of Common Council, City  
Election, 1891.**

<b>Ward 6.</b>		<b>Bradley.</b>	<b>Carroll.</b>	<b>Doherty.</b>	<b>Farrell.</b>	<b>Fitzgerald.</b>	<b>Ryder.</b>
Precinct <b>1</b>	.	30	155	190	106	164	160
" <b>2</b>	.	47	188	152	75	200	127
" <b>3</b>	.	24	138	99	108	146	116
" <b>4</b>	.	21	186	136	65	203	123
" <b>5</b>	.	44	134	115	67	130	80
<b>Totals</b>	.	166	801	692	421	843	606

<b>Ward 7.</b>		<b>Doherty.</b>	<b>Grant.</b>	<b>Harkins.</b>	<b>McKenna.</b>	<b>McManus.</b>	<b>Murphy.</b>	<b>Quint.</b>	<b>Rhone.</b>	<b>Toland.</b>
Precinct <b>1</b>	.	123	28	76	64	91	55	8	5	149
" <b>2</b>	.	101	28	73	90	49	73	5	9	82
" <b>3</b>	.	76	40	32	34	15	37	30	28	51
" <b>4</b>	.	74	25	35	70	19	127	15	14	108
" <b>5</b>	.	57	63	62	13	9	116	51	42	58
<b>Totals</b>	.	431	184	278	271	183	408	109	98	448

<b>Ward 8.</b>		<b>Boyle.</b>	<b>Crowley.</b>	<b>Donovan.</b>	<b>Ferrin.</b>	<b>Higgins.</b>	<b>Kelley.</b>	<b>McLaughlin.</b>	<b>Murphy.</b>	<b>Raher.</b>	<b>Winn.</b>
Precinct <b>1</b>	.	50	44	83	46	54	45	54	6	47	6
" <b>2</b>	.	88	44	105	26	70	43	76	21	41	13
" <b>3</b>	.	120	60	148	21	167	36	148	16	33	27
" <b>4</b>	.	127	27	149	19	131	31	134	7	23	50
" <b>5</b>	.	135	26	141	19	125	34	125	7	38	41
" <b>6</b>	.	94	15	197	21	186	9	185	17	12	67
<b>Totals</b>	.	614	216	823	152	733	198	722	74	194	204

**Votes Cast for Members of Common Council, City  
Election, 1891.**

<b>Ward 9.</b>		<b>Banks.</b>	<b>Everett.</b>	<b>McGee.</b>	<b>Murray.</b>	<b>Smith.</b>
Precinct <b>1</b>	.	157	175	79	71	194
" <b>2</b>	.	159	161	53	52	192
" <b>3</b>	.	187	151	51	53	155
" <b>4</b>	.	172	170	82	80	186
" <b>5</b>	.	86	53	147	134	102
<b>Totals</b>	.	761	710	412	390	829

<b>Ward 10.</b>		<b>Cornish.</b>	<b>Parker.</b>	<b>Quincy.</b>	<b>Spring.</b>	<b>Threshie.</b>
Precinct <b>1</b>	.	53	207	61	198	49
" <b>2</b>	.	66	163	77	159	68
" <b>3</b>	.	55	117	66	109	53
" <b>4</b>	.	157	91	157	88	156
<b>Totals</b>	.	331	578	361	554	326

<b>Ward 11.</b>		<b>Briggs.</b>	<b>Casey.</b>	<b>Cunningham.</b>	<b>Hallstram.</b>	<b>Robbins.</b>
Precinct <b>1</b>	.	179	22	63	152	187
" <b>2</b>	.	156	16	32	141	162
" <b>3</b>	.	177	25	39	170	182
" <b>4</b>	.	202	36	68	75	187
" <b>5</b>	.	108	158	150	95	101
" <b>6</b>	.	108	148	136	98	95
" <b>7</b>	.	144	40	53	127	137
" <b>8</b>	.	216	34	44	210	209
" <b>9</b>	.	200	51	57	189	189
" <b>10</b>	.	167	33	53	154	167
" <b>11</b>	.	171	38	58	159	189
<b>Totals</b>	.	1,828	601	753	1,570	1,805

**Votes Cast for Members of Common Council, City  
Election, 1891.**

<b>Ward 12.</b>	<b>Callahan.</b>	<b>Gower.</b>	<b>Macdonald.</b>	<b>Pope.</b>	<b>Quinn, Jr.</b>	<b>Welch.</b>
Precinct 1.....	236	8	10	10	245	241
“ 2.....	201	18	13	17	119	119
“ 3.....	222	15	26	15	211	192
“ 4.....	210	66	61	63	204	194
“ 5.....	99	115	95	93	100	89
<b>Totals .....</b>	<b>968</b>	<b>222</b>	<b>205</b>	<b>198</b>	<b>879</b>	<b>835</b>

<b>Ward 13.</b>	<b>Merrill.</b>	<b>Norris.</b>	<b>Sullivan.</b>	<b>Whiteley.</b>	<b>Woods.</b>
Precinct 1.....	92	106	110	137	102
“ 2.....	103	124	112	76	102
“ 3.....	114	124	149	94	137
“ 4.....	164	165	178	102	138
“ 5.....	130	148	166	106	111
“ 6.....	170	169	170	90	149
“ 7.....	112	156	123	74	115
“ 8.....	107	155	106	64	85
“ 9.....	145	152	155	67	110
<b>Totals .....</b>	<b>1,137</b>	<b>1,299</b>	<b>1,269</b>	<b>810</b>	<b>1,049</b>



**Votes Cast for Members of Common Council, City  
Election, 1891.**

<b>Ward 14.</b>	<b>Boyd.</b>	<b>Chenery.</b>	<b>Coughlin.</b>	<b>Dean.</b>	<b>Daunt.</b>
Precinct 1.....	61	54	187	192	207
" 2.....	69	63	215	221	214
" 3.....	40	27	230	216	219
" 4.....	99	80	127	138	119
" 5.....	142	99	149	154	125
" 6.....	143	126	131	153	112
" 7.....	127	122	107	122	95
" 8.....	173	148	101	130	94
" 9.....	71	58	173	167	152
" 10.....	94	79	148	162	131
" 11.....	99	101	124	133	113
" 12.....	118	127	107	122	96
<b>Totals .....</b>	<b>1,236</b>	<b>1,084</b>	<b>1,799</b>	<b>1,910</b>	<b>1,677</b>

<b>Ward 15.</b>	<b>Dillingham.</b>	<b>Gore.</b>	<b>Healey.</b>	<b>Stickney.</b>	<b>Sullivan.</b>
Precinct 1.....	18	225	205	20	213
" 2.....	31	195	186	32	191
" 3.....	80	171	149	88	159
" 4.....	84	141	109	90	117
" 5.....	107	207	163	118	161
" 6.....	76	224	189	79	193
" 7.....	86	164	120	71	137
" 8.....	104	236	171	99	187
<b>Totals .....</b>	<b>586</b>	<b>1,563</b>	<b>1,292</b>	<b>597</b>	<b>1,358</b>

**Votes Cast for Members of Common Council, City  
Election, 1891.**

<b>Ward 16.</b>	<b>Barry.</b>	<b>Belcher.</b>	<b>Deblois.</b>	<b>Huggins.</b>	<b>Keenan.</b>	<b>Levy.</b>	<b>Reinhart.</b>
Precinct 1.....	193	45	62	37	126	114	136
" 2.....	113	92	89	106	53	60	79
" 3.....	161	36	57	34	74	90	162
" 4.....	178	79	112	50	67	64	62
" 5.....	201	23	40	14	168	94	123
" 6.....	221	17	42	11	202	108	137
<b>Totals .....</b>	<b>1,067</b>	<b>292</b>	<b>402</b>	<b>252</b>	<b>690</b>	<b>530</b>	<b>699</b>

<b>Ward 17.</b>	<b>Berwin.</b>	<b>Browne.</b>	<b>Clark.</b>	<b>Emerson.</b>	<b>Patterson.</b>	<b>Quinn.</b>
Precinct 1.....	212	65	190	213	71	59
" 2.....	209	55	202	203	52	46
" 3.....	144	53	151	141	55	49
" 4.....	139	52	152	139	76	57
" 5.....	95	123	117	81	149	151
" 6.....	56	228	64	39	276	266
" 7.....	84	123	83	72	159	160
" 8.....	40	172	47	89	190	195
<b>Totals .....</b>	<b>979</b>	<b>871</b>	<b>1,006</b>	<b>927</b>	<b>1,028</b>	<b>983</b>

**Votes Cast for Members of Common Council, City  
Election, 1891.**

<b>Ward 18.</b>	<b>Merrill.</b>	<b>Perkins.</b>	<b>Ratskesky.</b>	<b>Smith.</b>	<b>Stewart.</b>	<b>Talbot.</b>
Precinct 1.....	62	36	225	174	21	
“ 2.....	72	54	222	188	40	
“ 3.....	72	57	224	211	44	
“ 4.....	66	56	179	161	49	
“ 5.....	77	75	174	150	64	
“ 6.....	158	159	138	97	155	
“ 7.....	156	162	155	91	148	
<b>Totals.....</b>	<b>663</b>	<b>599</b>	<b>1,817</b>	<b>1,072</b>	<b>516</b>	<b>1,</b>

<b>Ward 19.</b>	<b>Crooker.</b>	<b>Curley.</b>	<b>Heintz.</b>	<b>Levi.</b>	<b>Lonergan.</b>	<b>Lynch.</b>	<b>Lyons.</b>	<b>O'Brien, Jr.</b>	<b>Reftory.</b>
Precinct 1..	88	147	94	95	38	136	100	30	
“ 2..	47	153	67	49	18	156	88	34	
“ 3..	74	112	82	73	18	120	109	36	
“ 4..	86	94	90	96	16	93	86	18	
“ 5..	112	64	109	101	19	71	52	39	
“ 6..	118	112	111	122	27	117	86	23	
“ 7..	72	141	84	68	18	129	116	45	
“ 8..	98	143	101	105	35	125	106	54	
“ 9..	49	113	52	46	22	139	166	33	
<b>Totals ...</b>	<b>744</b>	<b>1,079</b>	<b>790</b>	<b>755</b>	<b>211</b>	<b>1,086</b>	<b>909</b>	<b>312</b>	

**Votes Cast for Members of Common Council, City  
Election, 1891.**

<b>Ward 20.</b>	<b>Andrews.</b>	<b>Boyd.</b>	<b>Dolan.</b>	<b>McClellan.</b>	<b>Porter.</b>	<b>Sears.</b>	<b>Taylor.</b>	<b>Scattering.</b>
<b>Precinct 1.....</b>	64	231	265	258	20	33	31	
<b>" 2.....</b>	57	218	245	235	21	42	41	
<b>" 3.....</b>	90	125	142	136	47	90	80	
<b>" 4.....</b>	150	97	86	78	18	149	134	
<b>" 5.....</b>	65	190	222	213	12	36	32	
<b>" 6.....</b>	55	211	201	188	9	32	32	
<b>" 7.....</b>	163	103	117	117	12	142	144	
<b>" 8.....</b>	91	170	186	178	10	68	67	
<b>" 9.....</b>	58	139	129	126	7	55	55	
<b>" 10.....</b>	169	45	52	68	17	164	163	
<b>" 11.....</b>	153	30	29	59	18	154	139	
<b>" 12.....</b>	169	88	95	107	20	178	170	
<b>" 13.....</b>	84	190	210	198	10	73	63	1
<b>Totals .....</b>	1,368	1,837	1,979	1,961	221	1,216	1,151	1

**Votes Cast for Members of Common Council, City  
Election, 1891.**

<b>Ward 21.</b>	<b>Burlen.</b>	<b>Burrage.</b>	<b>Dyer.</b>	<b>Kranefuss.</b>	<b>Norton.</b>	<b>Scates.</b>
<b>Precinct 1.....</b>	115	150	81	48	52	144
“ <b>2.....</b>	102	124	148	111	123	115
“ <b>3.....</b>	108	159	86	54	65	158
“ <b>4.....</b>	62	91	164	154	155	81
“ <b>5.....</b>	78	96	193	184	175	86
“ <b>6.....</b>	102	146	120	134	102	132
“ <b>7.....</b>	152	198	81	50	62	183
“ <b>8.....</b>	137	191	73	39	49	179
“ <b>9.....</b>	139	172	98	59	65	162
“ <b>10.....</b>	148	177	124	95	103	163
“ <b>11.....</b>	158	198	86	44	49	180
“ <b>12.....</b>	139	190	119	91	97	167
<b>Totals.....</b>	<b>1,440</b>	<b>1,892</b>	<b>1,373</b>	<b>1,063</b>	<b>1,097</b>	<b>1,750</b>

Votes Cast for Members of Common Council, City Election, 1891.

Ward 22.	Bleiler.	Finneran.	Gormley.	Janse.	Kinney.	O'Driscoll.	Weinz.
Precinct 1.....	181	49	44	164	35	41	161
" 2.....	107	52	81	120	56	55	89
" 3.....	64	88	95	70	75	67	61
" 4.....	47	109	109	36	90	89	49
" 5.....	68	120	109	56	73	76	71
" 6.....	36	174	164	25	123	94	89
" 7.....	89	123	100	65	92	106	108
" 8.....	100	92	80	78	62	64	92
" 9.....	138	101	86	52	41	80	91
" 10.....	190	91	86	88	38	67	101
Totals .....	1,015	994	954	754	685	739	862

Ward 23.	Draper.	Johnson.	Kane.	Pierce.	Proctor.	Webb.	Estabrook.
Precinct 1.....	111	122	94	109	125	91	
" 2.....	128	106	98	136	112	112	
" 3.....	123	130	128	151	141	105	
" 4.....	155	62	56	150	94	133	
" 5.....	163	62	57	168	106	143	
" 6.....	123	48	47	120	78	109	1
" 7.....	148	68	75	155	118	120	
" 8.....	70	178	186	73	193	45	
" 9.....	83	149	147	107	164	88	
" 10.....	79	128	131	86	143	74	
" 11.....	121	124	124	128	124	127	
" 12.....	116	52	63	128	64	142	
" 13.....	170	47	74	167	64	172	
" 14.....	47	83	97	48	86	86	
Totals .....	1,632	1,359	1,372	1,721	1,607	1,497	1

**Votes Cast for Members of Common Council, City  
Election, 1891.**

Ward 24.		Allen.	Beale, Jr.	Folsom, Jr.	Patterson.	Young.
Precinct	1.....	103	91	219	161	187
"	2.....	85	88	179	140	150
"	3.....	97	109	166	127	130
"	4.....	146	157	160	106	102
"	5.....	190	168	109	51	58
"	6.....	88	68	153	129	134
"	7.....	94	100	138	123	138
"	8.....	82	89	175	152	165
"	9.....	69	68	106	135	150
"	10.....	107	115	247	232	261
"	11.....	101	107	170	154	165
"	12.....	72	72	136	158	134
"	13.....	90	94	213	217	223
"	14.....	74	76	213	168	188
"	15.....	65	84	159	136	151
"	16.....	76	86	112	96	103
Totals. ....		1,539	1,572	2,655	2,285	2,439

Ward 25.	Farrell.	Goodenough.	Mitchell.	Muldoon.	Ricker.
Precinct 1.....	129	189	114	118	128
“ 2.....	61	230	203	50	62
“ 3.....	151	157	114	139	167
“ 4.....	241	142	61	253	253
“ 5.....	155	149	84	137	192
“ 6.....	163	207	133	138	186
Totals .....	900	1,074	709	835	988

**Votes Cast for Street Commissioner, City Election, 1891.  
Term, Two Years.**

Wards.	Cone.	Duane.	Nugent.
1.....	101	1,291	1,127
2.....	57	1,437	426
3.....	120	1,158	585
4.....	75	877	766
5.....	76	1,076	639
6.....	28	1,114	153
7.....	23	686	165
8.....	49	1,034	373
9.....	87	445	603
10.....	47	347	499
11.....	128	840	1,461
12.....	29	890	237
13.....	17	1,877	239
14.....	101	1,809	1,128
15.....	53	1,306	575
16.....	71	905	390
17.....	92	1,001	898
18.....	97	631	1,082
19.....	96	1,130	1,030
20.....	146	1,994	1,168
21.....	188	1,101	1,744
22.....	42	1,187	921
23.....	211	1,477	1,485
24.....	210	1,591	2,050
25.....	65	984	754
<b>Totals .....</b>	<b>2,209</b>	<b>28,188</b>	<b>20,498</b>

Proportion of men registered who voted, 69.36 per cent.



**Votes Cast for Street Commissioner, City Election, 1891  
Term, Three Years.**

Wards.	Dore.	Whitcomb.	All others.
1.....	1,941	361	
2.....	1,549	129	
3.....	1,597	170	
4.....	1,393	177	
5.....	1,537	164	
6.....	1,189	55	
7.....	753	41	
8.....	1,198	76	
9.....	914	120	
10.....	762	88	
11.....	2,125	227	
12.....	1,011	71	
13.....	1,931	44	
14.....	2,637	235	
15.....	1,717	130	
16.....	1,181	93	
17.....	1,724	143	
18.....	1,585	167	
19.....	1,771	179	
20.....	2,887	227	
21.....	2,576	326	
22.....	1,835	109	
23.....	2,694	264	
24.....	3,359	380	
25.....	1,536	177	
Totals.....	43,402	4,153	

Proportion of men registered who voted, 64.81 per cent.

**Percentage of Men who voted at City Election, 1891,***As per actual count of names checked on Voting Lists.*

<b>Wards</b>	<b>Number Men Registered.</b>	<b>Number Votes Cast.</b>	<b>Proportion of Men Registered who Voted.</b>
1.....	3,463	2,622	75.71 per cent.
2.....	2,796	2,112	75.54 " "
3.....	2,627	2,043	77.77 " "
4.....	2,432	1,926	79.19 " "
5.....	2,608	1,973	75.65 " "
6.....	1,915	1,528	79.79 " "
7.....	1,502	1,110	73.90 " "
8.....	2,011	1,521	75.63 " "
9.....	1,863	1,287	69.08 " "
10.....	1,389	964	69.40 " "
11.....	4,219	2,589	61.37 " "
12.....	1,657	1,278	77.13 " "
13.....	2,912	2,435	83.62 " "
14.....	4,300	3,398	79.02 " "
15.....	2,755	2,073	75.24 " "
16.....	2,118	1,601	75.59 " "
17.....	2,731	2,189	80.15 " "
18.....	2,498	1,956	78.30 " "
19.....	3,288	2,554	77.68 " "
20.....	4,489	3,632	80.91 " "
21.....	4,312	3,263	75.67 " "
22.....	3,090	2,465	79.77 " "
23.....	4,463	3,416	76.54 " "
24.....	5,440	4,176	76.76 " "
25.....	2,495	1,985	79.56 " "
<b>Totals.....</b>	<b>73,373</b>	<b>56,096</b>	

**Average per cent. of men registered who voted, 76.45.**

**Votes Cast for Members of School Committee, City  
Election, 1891.**

Wards.	THREE YEARS.								
	Allen.	*Capen.	*Darling.	*Davis.	Emery.	Folsom.	*Humphreys.	Linscott.	*Marshall.
1 ..	1,781	2,136	1,079	1,058	1,540	979	1,406	922	1,043
2 ..	655	1,059	1,393	1,332	643	319	898	284	1,334
3 ..	917	1,259	1,203	1,224	799	522	826	523	1,328
4 ..	1,067	1,289	881	871	911	551	817	519	901
5 ..	873	1,201	1,058	1,085	810	393	876	390	1,092
6 ..	201	538	1,140	1,094	276	88	620	93	1,133
7 ..	167	378	678	606	198	100	356	82	628
8 ..	385	640	1,056	986	384	197	561	197	1,004
9 ..	862	950	411	408	783	442	694	405	382
10 ..	587	745	357	326	603	255	600	233	320
11 ..	1,833	2,269	720	773	1,856	883	1,662	720	661
12 ..	270	548	900	835	299	183	487	193	872
13 ..	235	823	1,903	1,827	315	128	846	127	1,862
14 ..	1,623	2,333	1,851	1,788	1,456	940	1,614	859	1,784
15 ..	849	1,293	1,311	1,309	774	506	989	465	1,299
16 ..	497	831	902	882	507	264	656	320	867
17 ..	1,168	1,508	1,037	960	1,038	726	1,077	525	978
18 ..	1,377	1,652	619	598	1,354	694	1,151	614	579
19 ..	982	1,575	1,355	1,318	851	625	1,092	493	1,321
20 ..	1,643	2,400	2,000	1,982	1,371	1,015	1,814	874	1,938
21 ..	2,407	2,925	1,162	1,120	2,103	1,449	1,890	1,236	1,072
22 ..	858	1,321	1,344	1,302	870	498	1,095	364	1,306
23 ..	1,938	2,558	1,451	1,378	1,803	1,046	1,754	865	1,380
24 ..	2,944	3,602	1,447	1,463	2,521	1,686	2,605	1,450	1,305
25 ..	1,023	1,815	855	837	833	518	871	470	845
Totals	27,142	37,148	28,113	27,362	24,898	15,007	27,257	13,223	27,234

**Votes Cast for Members of School Committee, City  
Election, 1891.**

THREE YEARS.					TWO YEARS.				ONE YEAR.			Wards.
*Pingree.	*Schindler.	*Strange.	Winship.	All others.	*Huggan.	Miller.	Paine.	All others.	Dimick.	*Kennedy.	All others.	
1,879	1,372	1,050	1,722	1	1,304	830	635	..	1,778	963	..	1
873	878	1,260	556	2	1,413	293	169	..	608	1,370	..	2
1,061	872	1,229	858	..	1,110	383	450	..	819	1,101	..	3
1,079	807	811	943	1	801	511	456	..	956	797	..	4
1,012	879	1,016	811	3	1,003	515	333	..	821	993	..	5
443	621	1,030	144	..	1,128	124	55	..	149	1,051	..	6
298	361	636	128	1	644	106	59	..	141	647	..	7
542	602	982	335	2	978	207	142	..	326	1,002	..	8
918	745	410	835	4	395	553	347	..	817	409	..	9
669	590	353	491	..	330	398	205	..	588	330	..	10
2,070	1,704	837	1,810	2	783	1,209	643	..	1,816	761	..	11
428	470	835	251	1	834	154	103	..	233	846	..	12
692	889	1,863	215	2	1,895	149	47	..	194	1,852	..	13
2,016	1,665	1,868	1,493	6	1,758	791	729	..	1,525	1,749	..	14
1,134	979	1,291	801	6	1,279	418	359	..	772	1,278	1	15
679	748	879	454	1	875	284	183	..	448	853	..	16
1,338	1,107	987	1,104	3	927	758	403	..	1,136	989	..	17
1,451	1,240	603	1,321	1	597	825	555	..	1,319	614	..	18
1,260	1,151	1,317	887	2	1,331	532	410	..	881	1,317	..	19
2,140	1,736	2,020	1,548	13	1,944	781	784	..	1,521	1,923	..	20
2,532	1,865	1,152	2,421	25	1,094	1,144	1,234	..	2,344	1,070	..	21
1,146	1,110	1,310	804	3	1,309	475	339	..	780	1,302	..	22
2,190	1,734	1,438	1,873	6	1,869	1,144	759	..	1,868	1,316	..	23
3,155	2,353	1,425	2,797	21	1,854	1,700	1,204	..	2,845	1,454	..	24
1,142	921	844	1,237	..	845	592	414	1	964	816	..	25
32,147	27,399	27,446	25,839	106	27,300	14,876	10,967	1	25,649	26,753	1	

## Number of Women Assessed for Poll-Tax only, 1891

Wards.	PRECINCTS.								
	1.	2.	3.	4.	5.	6.	7.	8.	9.
1...	0	19	21	10	15	13	11	2	
2...	2	2	6	6	1	2	6	...	...
3...	22	7	9	3	6	0	...	...	...
4...	7	24	11	5	1	7	...	...	...
5...	6	2	0	2	8	6	...	...	...
6...	0	2	1	1	3	...	...	...	...
7...	1	0	0	0	3	...	...	...	...
8...	5	9	4	2	7	0	...	...	...
9...	9	30	12	38	9	...	...	...	...
10...	10	10	0	3	...	...	...	...	...
11...	0	5	3	5	5	4	16	16	
12...	1	1	4	8	12	...	...	...	...
13...	1	0	1	1	0	0	7	1	
14...	5	7	1	8	7	12	18	13	
15...	0	0	15	18	19	18	11	17	
16...	5	7	1	4	0	1	...	...	...
17...	14	13	9	12	2	0	2	2	
18...	12	19	8	11	9	7	9	...	...
19...	5	3	6	9	5	10	4	11	
20...	2	4	10	11	5	1	9	8	
21...	15	9	10	4	8	8	16	12	
22...	5	3	4	1	0	1	5	7	
23...	7	11	5	6	4	6	5	2	
24...	30	28	20	2	4	7	5	18	
25...	2	14	20	3	7	10	...	...	...
Total..	...	...	...	...	...	...	...	...	...

## Number of Women Assessed for Poll-Tax only, 1891.

PRECINCTS.							Totals.	Wards.
10.	11.	12.	13.	14.	15.	16.		
...	...	...	...	...	...	...	98	..... 1
...	...	...	...	...	...	...	25	..... 2
...	...	...	...	...	...	...	47	..... 3
...	...	...	...	...	...	...	55	..... 4
...	...	...	...	...	...	...	24	..... 5
...	...	...	...	...	...	...	7	..... 6
...	...	...	...	...	...	...	4	..... 7
...	...	...	...	...	...	...	27	..... 8
...	...	...	...	...	...	...	98	..... 9
...	...	...	...	...	...	...	23	..... 10
19	6	...	...	...	...	...	94	..... 11
...	...	...	...	...	...	...	26	..... 12
...	...	...	...	...	...	...	13	..... 13
10	17	5	...	...	...	...	111	..... 14
...	...	...	...	...	...	...	98	..... 15
...	...	...	...	...	...	...	18	..... 16
...	...	...	...	...	...	...	54	..... 17
...	...	...	...	...	...	...	75	..... 18
...	...	...	...	...	...	...	56	..... 19
18	5	15	6	...	...	...	95	..... 20
18	10	18	...	...	...	...	144	..... 21
4	...	...	...	...	...	...	38	..... 22
0	3	4	6	4	...	...	66	..... 23
10	12	2	14	21	10	13	198	..... 24
...	...	...	...	...	...	...	56	..... 25
...	...	...	...	...	...	...	1,545	

**Registered Women Voters, City Election, 1891.**

<b>Wards.</b>	<b>PRECINCTS.</b>								
	<b>1.</b>	<b>2.</b>	<b>3.</b>	<b>4.</b>	<b>5.</b>	<b>6.</b>	<b>7.</b>	<b>8.</b>	<b>9.</b>
<b>1 . . .</b>	4	66	71	79	78	88	27	20	23
<b>2 . . .</b>	11	15	25	18	11	10	15	...	...
<b>3 . . .</b>	110	54	38	4	20	4	...	...	...
<b>4 . . .</b>	32	92	70	36	5	35	...	...	...
<b>5 . . .</b>	51	45	5	19	24	19	...	...	...
<b>6 . . .</b>	1	8	1	2	9	...	...	...	...
<b>7 . . .</b>	1	0	3	0	10	...	...	...	...
<b>8 . . .</b>	19	21	5	4	8	...	...	...	...
<b>9 . . .</b>	18	71	19	95	7	...	...	...	...
<b>10 . . .</b>	45	19	9	10	...	...	...	...	...
<b>11 . . .</b>	5	13	25	16	45	13	40	63	47
<b>12 . . .</b>	0	5	5	21	27	...	...	...	...
<b>13 . . .</b>	1	1	0	0	0	2	18	8	0
<b>14 . . .</b>	27	32	9	42	23	52	55	73	29
<b>15 . . .</b>	3	11	48	57	72	18	17	39	...
<b>16 . . .</b>	9	17	12	25	3	2	...	...	...
<b>17 . . .</b>	66	56	43	44	11	3	11	9	...
<b>18 . . .</b>	30	53	66	42	35	21	23	...	...
<b>19 . . .</b>	9	14	10	17	24	27	25	50	11
<b>20 . . .</b>	7	5	51	65	7	8	46	35	9
<b>21 . . .</b>	55	59	47	25	22	42	59	87	64
<b>22 . . .</b>	15	26	21	0	11	4	11	16	21
<b>23 . . .</b>	22	41	32	33	39	29	33	3	19
<b>24 . . .</b>	75	66	39	29	18	51	52	52	29
<b>25 . . .</b>	24	53	30	11	25	50	...	...	...
<b>Total . . .</b>	...	...	...	...	...	...	...	...	...

Registered Women Voters, City Election, 1891.

PRECINCTS.							Totals.	Wards.
10.	11.	12.	13.	14.	15.	16.		
...	...	...	...	...	...	...	451	1
...	...	...	...	...	...	...	105	2
...	...	...	...	...	...	...	230	3
...	...	...	...	...	...	...	270	4
...	...	...	...	...	...	...	163	5
...	...	...	...	...	...	...	21	6
...	...	...	...	...	...	...	14	7
...	...	...	...	...	...	...	57	8
...	...	...	...	...	...	...	210	9
...	...	...	...	...	...	...	83	10
41	18	...	...	...	...	...	326	11
...	...	...	...	...	...	...	58	12
...	...	...	...	...	...	...	30	13
46	58	51	...	...	...	...	497	14
...	...	...	...	...	...	...	265	15
...	...	...	...	...	...	...	68	16
...	...	...	...	...	...	...	243	17
...	...	...	...	...	...	...	270	18
...	...	...	...	...	...	...	187	19
54	86	58	21	...	...	...	402	20
57	42	75	...	...	...	...	634	21
16	...	...	...	...	...	...	141	22
22	31	41	29	9	...	...	383	23
45	42	23	51	72	38	25	707	24
...	...	...	...	...	...	...	193	25
...	...	...	...	...	...	...	6,008	



## Number of Votes Cast by Women for School

Wards.	PRECINCTS.								
	1.	2.	3.	4.	5.	6.	7.	8.	9.
1 . . .	4	66	70	71	75	76	27	17	21
2 . . .	8	13	25	17	11	9	14	...	...
3 . . .	101	54	35	4	20	4	...	...	...
4 . . .	30	89	66	33	5	35	...	...	...
5 . . .	51	40	5	19	19	19	...	...	...
6 . . .	0	8	0	2	7	...	...	...	...
7 . . .	0	0	3	0	9	...	...	...	...
8 . . .	16	20	3	3	7	0	...	...	...
9 . . .	14	67	17	86	7	...	...	...	...
10 . . .	41	18	6	10	...	...	...	...	...
11 . . .	5	8	17	14	38	13	32	57	47
12 . . .	0	5	4	19	12	...	...	...	...
13 . . .	1	1	0	0	0	2	18	8	0
14 . . .	23	29	8	36	21	51	49	61	25
15 . . .	3	10	45	55	63	18	14	34	...
16 . . .	9	13	11	19	2	2	...	...	...
17 . . .	61	48	40	39	10	2	9	8	...
18 . . .	26	51	59	39	33	21	18	...	...
19 . . .	7	12	9	15	21	24	23	42	11
20 . . .	7	5	46	58	6	8	43	35	8
21 . . .	47	51	40	21	22	40	51	72	64
22 . . .	12	22	21	0	11	3	10	15	17
23 . . .	22	38	30	32	39	29	32	3	14
24 . . .	67	56	33	24	13	46	40	46	28
25 . . .	21	43	28	11	22	46	...	...	...
Total . . .	...	...	...	...	...	...	...	...	...

Proportion of women registered who voted, 90.35 per cent.

## Committee at Municipal Election, 1891.

PRECINCTS.							Totals.	Wards.
10.	11.	12.	13.	14.	15.	16.		
...	...	...	...	...	...	...	427	1
...	...	...	...	...	...	...	97	2
...	...	...	...	...	...	...	218	3
...	...	...	...	...	...	...	258	4
...	...	...	...	...	...	...	153	5
...	...	...	...	...	...	...	17	6
...	...	...	...	...	...	...	12	7
...	...	...	...	...	...	...	49	8
...	...	...	...	...	...	...	191	9
...	...	...	...	...	...	...	75	10
38	13	...	...	...	...	...	282	11
...	...	...	...	...	...	...	40	12
...	...	...	...	...	...	...	30	13
34	51	47	...	...	...	...	435	14
...	...	...	...	...	...	...	242	15
...	...	...	...	...	...	...	56	16
...	...	...	...	...	...	...	217	17
...	...	...	...	...	...	...	247	18
...	...	...	...	...	...	...	164	19
50	31	53	21	...	...	...	371	20
54	38	68	...	...	...	...	568	21
14	...	...	...	...	...	...	125	22
19	30	34	28	8	...	...	358	23
38	40	22	46	67	36	23	625	24
...	...	...	...	...	...	...	171	25
...	...	...	...	...	...	...	5,428	

**Votes Cast on Question of License, City Election, 1891.**

<b>Wards.</b>	<b>Yes.</b>	<b>No.</b>
1.....	1,094	1,177
2.....	1,061	673
3.....	945	790
4.....	848	727
5.....	930	768
6.....	690	534
7.....	469	351
8.....	717	567
9.....	580	464
10.....	497	328
11.....	1,448	853
12.....	672	380
13.....	1,064	986
14.....	1,464	1,393
15.....	884	905
16.....	833	448
17.....	1,063	789
18.....	924	765
19.....	1,133	932
20.....	1,615	1,408
21.....	1,442	1,386
22.....	1,281	747
23.....	1,521	1,362
24.....	1,557	2,072
25.....	916	747
<b>Totals.....</b>	<b>25,648</b>	<b>21,552</b>

Proportion of men registered who voted, 64.33 per cent.

[DOCUMENT 32 — 1892.]



ANNUAL REPORT  
OF THE  
REGISTRY DEPARTMENT,  
FOR THE YEAR 1891.

BOSTON, Feb. 10, 1892.

HON. NATHAN MATTHEWS, JR.,

*Mayor of the City of Boston:*

SIR: On the 31st day of October, 1891, the undersigned was by you appointed temporarily acting City Registrar to fill the vacancy caused by the death of Mr. N. A. Apollonio, City Registrar.

There is herewith submitted such report as it has been practicable to prepare of the births, marriages, and deaths in the city of Boston for the period embraced between the first day of January, 1891, and the 31st day of January, 1892.

The number of children registered in 1891 was 13,957, an increase of 668 over the number recorded in 1890.

The number of still-born children was 625. The canvass of the city for births includes only the twelve months ending December 31.

MARRIAGES IN 1891.

There were 5,929 marriages recorded during the year 1891, being an increase of 98 over the number registered in 1890.

The number of intentions of marriage recorded was 6,302, an increase of 273 over the number entered in 1890.

BIRTHPLACES OF GROOMS.	BIRTHPLACES OF BRIDES.						
	United States.	Ireland.	England and Wales.	Scotland.	British America.	Germany and Northern Europe.	Other foreign Countries.
United States . . . . .	2,444	212	67	14	375	30	17
Ireland . . . . .	154	744	16	4	59	2	979
England and Wales . . . . .	92	48	61	8	38	5	257
Scotland . . . . .	27	15	8	35	17	1	104
British America . . . . .	233	62	20	7	443	9	778
Germany and Northern Europe . . . . .	45	19	11	20	281	18	394
Other foreign countries . . . . .	70	20	11	4	14	18	258
Totals . . . . .	3,065	1,120	194	72	966	346	5,929

#### AGES OF THE PARTIES MARRIED.

AGES OF THE GROOMS.	AGES OF THE BRIDES.						
	Under 18 years.	18 to 25 years.	25 to 30 years.	30 to 40 years.	40 to 50 years.	50 to 60 years.	60 to 70 years.
Under 21 years . . . . .	14	90	3	1	1	1	108
21 to 25 years . . . . .	63	1,463	165	29	1	1	1,720
25 to 30 years . . . . .	23	1,186	736	117	5	1	2,068
30 to 40 years . . . . .	6	439	530	470	37	1	1,482
40 to 50 years . . . . .	...	28	71	188	79	3	399
50 to 60 years . . . . .	...	5	13	33	50	26	128
60 to 70 years . . . . .	...	2	2	10	20	8	47
Over 70 years . . . . .	...	...	3	...	3	1	7
Totals . . . . .	106	3,213	1,523	848	194	38	5,929

Of grooms, 4 were 17 years, 8 were 18 years, 21 were 19 years, and 75 were 20 years of age.

Of brides, 1 was only 14 years of age, 9 were 15 years, 29 were 16 years, and 67 were 17 years of age.

In 888 instances were the brides older than the grooms, and in the case of 125 couples the disparity in ages exceeded 17 years.

## NUMBER OF TIMES MARRIED.

GROOMS.	BRIDES.			
	First.	Second.	Thirdd.	Totals.
First marriage . . . . .	4,860	313	2	5,175
Second " . . . . .	496	209	11	716
Thirdd " . . . . .	20	12	2	34
Fourth " . . . . .	3	1	.....	4
Totals . . . . .	5,379	536	15	5,929

There were 158 marriages where both parties were colored and 33 where the grooms were colored and the brides white. There were three marriages where the grooms were natives of China to brides of other nativity, and one marriage between Indians.

The number of intentions of marriage recorded in January, 1892, was 459, and the number of marriages returned was 199.

## THE MORTALITY OF 1891.

There were 10,572 deaths registered in Boston in 1891, an increase of 394 from the number reported in 1890.

Of the total number of decedents, 287 were colored,—148 males and 139 females,—8 were Chinese, and 2 were Indians.

## AGES OF DECEDENTS.

	Male.	Female.	Totals.
Under 1 year . . . . .	1,400	1,147	2,547
1 to 5 years . . . . .	591	555	1,146
5 to 20 years . . . . .	357	317	674
20 to 40 years . . . . .	1,117	1,085	2,152
40 to 60 years . . . . .	1,006	941	1,947
Over 60 years . . . . .	909	1,197	2,106
Totals . . . . .	5,380	5,192	10,572

## BIRTHPLACE OF DECEDENTS.

United States . . . . .	7,045
Ireland . . . . .	2,119
Germany . . . . .	203
British America . . . . .	491
England, Scotland, and Wales . . . . .	341
Other foreign countries . . . . .	259
Unknown . . . . .	114
Total . . . . .	<u>10,572</u>

There were 281 accidental deaths and 48 suicides.

The number of deaths recorded in January, 1892, was 1,188, of which 573 were males and 615 females.

## INCOME.

Balance Jan. 1, 1891 . . . . .	\$136 50
Receipts for marriage licenses from Jan. 1, 1891 to Jan. 31, 1892 . . . . .	3,380 50
	<u>\$3,517 00</u>

## EXPENDITURES.

Salary City Registrar, to Oct. 30, 1891 . . . . .	\$2,158 59
Salary acting City Registrar, from Oct. 31, 1891, to Feb., 1892 . . . . .	628 72
Clerk-hire . . . . .	8,034 75
Copying old records . . . . .	662 00
Sampson, Murdock, & Co., birth returns, 1890, 13,145; 1889, 107; at 25 cents . . . . .	3,313 00
Returns of births by physicians . . . . .	253 75
Printing . . . . .	240 52
Telephone . . . . .	90 00
Stationery . . . . .	81 15
Total . . . . .	<u>\$15,462 48</u>

## RECEIPTS.

Balance of appropriation Jan. 1, 1891 . . . . .	\$7,264 36
Appropriation for 9 months ending Jan. 31, 1892 . . . . .	9,000 00
Total . . . . .	<u>\$16,264 36</u>
Total expenditures . . . . .	15,462 48
Balance . . . . .	<u>\$801 88</u>
Balance April 30, 1891 . . . . .	\$305 16
Balance Jan. 31, 1892 . . . . .	496 72
	<u>801 88</u>

Respectfully submitted,

FRANKLIN D. RIDEOUT,  
*Acting City Registrar.*



# ANNUAL REPORT

OF THE

## DEPARTMENT FOR RELIEF OF THE POOR,

FOR THE YEAR 1891.

BOSTON, Feb. 1, 1892.

HON. NATHAN MATTHEWS, JR.,

*Mayor of the City of Boston:*

SIR: The Board of Overseers of the Poor herewith present their twenty-eighth annual report of the present series, covering the thirteen months from Jan. 1, 1891, to Feb. 1, 1892.

### EXPENSE OF THE DEPARTMENT.

Our drafts upon the city treasury during the thirteen months ending Jan. 31, 1892, amounted to . . . . .	\$113,993 37
Sundry receipts paid over to City Collector . . . . .	14,284 67
Leaving the net charge to the city for the department for thirteen months . . . . .	\$99,708 70
Amount collected by us for care in City Hospital of State paupers, and those belonging elsewhere than in Boston, and paid over to the trustees of the City Hospital, . . . . .	\$46,553 99
From the Commonwealth, . . . . .	\$40,247 09
From cities and towns . . . . .	6,306 90
	<u>\$46,553 99</u>



## STATISTICS OF CASES AIDED.

The number of families assisted by us in the thirteen months was 2,827. Of these, 249 families resided in sixty-four other cities and towns, but had retained their settlement in this city; and we received payment for aid rendered to 233 families residing in Boston, whose legal settlement was elsewhere.

The number of new cases aided during the thirteen months was 631, making the total number of cases dealt with since 1864 by our Board 28,263.

The number of visits made officially by our visitors during the thirteen months was 18,013. In addition, 1,772 visits were made by the four physicians in the employ of the Board.

## LODGE FOR WAYFARERS AND THE WOOD-YARD.

Much care and thought has been devoted to the Lodge and Wood-yard. The number of lodgers has increased very largely, and the accommodations of the Lodge have been severely taxed. The limited nature of the yard has prevented an increase in the amount of work done there proportionate to the increased number of lodgers. The Wood-yard and Lodge were established in 1879 by the Overseers of the Poor, with the design of offering to the homeless poor a work test, and of obtaining from them something of value in return for the night's lodging and meals given them.

Formerly the tramps and homeless men who applied to the police-stations for shelter were taken care of at the station-houses, and no work was required of them. Now every able-bodied man must do a certain amount of work before leaving the Lodge in the morning, or securing his supper at night. At the time the Wayfarers' Lodge was established, it was the practice for the city to supply tramps with meals at the Temporary Home. Twenty-nine thousand meals were thus furnished in a single year. Now all men are sent to the Lodge, and if able-bodied, are obliged to work for their meals or go without. At that time from two hundred to six hundred tramps were provided for at the station-houses each night; an annual average of sixty thousand. The largest number that we have ever had at the Lodge at one time is two hundred, and the annual number is about thirty-five thousand. This would seem to show that the tramp prefers a hard board to sleep on where no work is required of him in payment, to a good bed with two hours' work as a condition subsequent next morning.

The ordinary stint required of our lodgers is the sawing or

splitting of two feet of wood. This is generally done without any grumbling on the part of the men. Each man that applies for a lodging is obliged to take a bath. His clothes are carefully done up in a bundle, and, if necessary, thoroughly cleansed in a hot vapor bath, and a clean night-gown is given him. In the morning he finds a good breakfast awaiting him, and all that he is asked to do in return is to perform a task which rarely takes more than two hours to accomplish. It is not to be wondered at that the same men apply again and again to be taken into the Lodge.

The wood prepared in this way is sold throughout the city to private individuals; and the school-houses and other public buildings are supplied by us. The Board is indebted to the courtesy of the City Council for the use of the Hawkins-street school-house, which, although hardly as commodious as the demands of the present winter call for, yet is ordinarily well suited for the purpose, and is most admirably located.

Some changes have been made during the past year in the manner of keeping the accounts of the wood sold, and in the matter of the meals furnished employees of the yard; all of which, the committee in charge of the Lodge hopes, will tend to greater simplicity and economy of management.

During the past year the wharf leased by the Board for the storage and preparation of wood has been greatly improved. By the kindness of the Committee on Paving of the Board of Aldermen the driveway leading from the wharf to the street has been thoroughly repaired and paved; and the owners of the wharf, stimulated by this and other expenditures on the part of the Board, have spent some money in repairs. Other repairs are greatly needed, and it is to be hoped that the lessors may have them made ere long.

A proposition was made to have the Board buy the wharf, and a special committee was appointed to consider the advisability of making such a purchase. After a thorough investigation, the committee reported that it was inexpedient to buy, and the matter was dropped.

The statistics of the lodge are as follows:

Number of lodgers in thirteen months, to Jan. 31,		
1892	.	40,394
Number of meals furnished to lodgers and others,		
		91,329

*Birthplace of Lodgers during the same Period.*

America	.	19,122	British Provinces	.	2,324
Ireland	.	13,427	Scotland	.	1,095
England	.	3,107	Other countries	.	1,319

### TEMPORARY HOME FOR WOMEN AND CHILDREN.

This useful auxiliary of the work of our Board has been carried on as usual. It is designed to be a temporary abiding-place only for women and children who from any cause are stranded in the city without shelter. Hither are brought also all the foundlings picked up in doorways or on the street by policemen, or brought into the police-station. Careful record is taken and kept of all these little waifs, and names are given them from the list prepared some years ago for the purpose by the committee. They are then generally given over to the charge of the State Board of Lunacy and Charity.

All the women applying or sent to the Home are duly registered, and all that are able are required to perform some labor as a sort of test and equivalent for the board and lodging given. All the laundry-work for the Wayfarers' Lodge is done by the women of the Home, which is no inconsiderable item. The bread eaten at the Lodge is baked by the women at the Home. Then there is all the laundry-work and house-work at the Home itself; the care of all the rooms; the scrubbing and cleaning of the stairs and halls, and a large part of the cooking. All this is done by the inmates of the Home; and in addition, for the last few months three women have been sent into the Charity Building for a few hours daily, to do the cleaning and scrubbing throughout the entire building, under the charge of the janitor.

One thing which the committee in charge of the Home has endeavored to do in the past year is to put an end, so far as possible, to the abuse of the privileges of the Home by certain "rounders," or women who are confirmed drunkards, and who have been in the habit of alternating between the "Island" and the Home, regularly turning up at the Home on the completion of their sentences for drunkenness, and as regularly going back to the "Island" after a brief sojourn at the Home. We hope, by means of careful registration and strict enforcement of the rules, to ultimately restrict the advantages of the Home to the class for whose accommodation and benefit it was originally instituted,—the needy poor.

The statistics of the Home during the past thirteen months are as follows:

Whole number admitted	3,973
American women	913
Foreign women	2,219
Children under twelve years of age	611
Others	220
Births	10

Lost children restored to their parents or guardians,	90
Persons furnished with employment . . . .	786
Adults sent to the almshouse . . . . .	326
Children sent to the almshouse . . . . .	114
Children who left the Home with their parents .	451
Persons sent to their friends . . . . .	114
Deaths . . . . .	6
Number in Home, Feb. 1, 1892 . . . . .	39
Number of single meals furnished to women and children who did not lodge at the Home . .	10,282

### TRUST FUNDS.

The total amount of the trust funds in our charge as a corporation is now \$702,074.60, an increase during the last thirteen months of \$20,260.25. The legacy received from the estate of the late William B. Spooner, amounting to \$5,000, was the most notable addition to our trust funds during the year. The income has also been increased by the receipts from the sale of land taken by the town of Brookline for the Muddy River Improvement. Four thousand five hundred dollars were received from this source, and duly invested in City of Boston bonds.

The Board has spent considerable time in examining applications for assistance from the various trusts under its care, and in determining to whom the income shall be granted. The public are now well aware of the existence of the trust funds in our hands, and applications are numerous. Most of the funds are restricted by the donors, and the Board have therefore adopted certain general rules in accordance with which the income is distributed. The amount ordinarily voted is fifty dollars a year, payable in two semi-annual payments of twenty-five dollars each. An age limit of fifty years has been established, and the applicant must have written testimonials from one or more reputable citizens. A long residence in Boston is also required, and it must appear that the applicant has formerly been in comfortable circumstances. Despite these requirements, it is not very difficult to get upon the list of trust pensioners, as is shown by the number now aided from these funds.

The number of pensioners now aided from the Pemberton, the Boylston Relief, the David Sears Charity, and the Moses Hunt funds, is two hundred and nineteen, one less than on January 1, 1891. During the thirteen months twenty-six have died, one has gone to the Old Ladies' Home, two have disappeared, eight have been dropped from the rolls, and thirty-six have been added.

We have paid during the thirteen months from the Boylston Education Fund, \$9,715.86 for the board of children. Forty-five children are now supported from the income of this fund; the full number that can receive aid from it.

A brief statement of the names and establishments of the different trusts in our hands will be found at the end of this report; also a detailed tabular statement of the receipts and expenditures and present financial status of each of the fourteen funds.

#### INVESTIGATION OF DEPARTMENT.

Early in 1891 a resolution was introduced into the Board of Aldermen and passed by them, ordering an investigation of the books of this department by expert accountants. An investigation was begun and discontinued, the Corporation Counsel having replied to a resolution of inquiry of our Board that the authority to make such an investigation did not rest with the Board of Aldermen. Subsequently your Honor requested the Board to have an expert examination made, and the matter was intrusted by our Board to the Committee on Finance, who employed Messrs. George T. Stoddard and Frederick C. Tufts to examine the books, cash, and securities, and to audit the accounts. They made a thorough and lengthy examination, and reported to the Board that the books of the department were properly and clearly kept and accurately vouched, and that the cash and securities were all on hand as alleged in our report and called for by the books. They recommended certain changes in the manner of keeping the books at the Lodge for Wayfarers and Wood-yard, which were at once made.

In January, 1892, Mr. Stoddard audited the books and accounts of the Overseers of the Poor for the year 1891, at the request of the Board, and under the direction of the Committee on Finance, and reported that everything was correct and all vouchers properly kept. This is in addition to the monthly examination and report upon the books and accounts made by the Finance Committee to the Full Board.

#### FIRE-PROOF VAULT.

A fire-proof vault has been constructed in the basement of the Charity Building, in which the old records of the Board and other valuable documents belonging to the Board, have been deposited for safe-keeping. The safe in the office had long since proved much too small for the reception of all the records, and there was great danger lest some of them should be destroyed in case of fire.

The action of the Board is in line with the growing feeling of the importance of preserving ancient records; a feeling which the Commonwealth has recognized by the appointment of a special officer to travel over the State and report upon the condition of the town records.

#### EAST BOSTON PHYSICIAN.

On recommendation of the Medical Committee, the Board has discontinued the position of medical officer at East Boston. It was found that the calls for a physician were comparatively few, and that the Boston Dispensary could be depended upon to care for such cases as really needed attention. This leaves but four physicians in the employ of our Board, one each in Roxbury, Charlestown, Jamaica Plain, and Brighton. The Boston Dispensary, a beneficent private charity, fully covers all the territory in the limits of old Boston, so that our Board is obliged to provide medical assistance only for the annexed districts.

#### EXTRAVAGANT FUNERALS.

Many instances have come under the notice of the Board of the payment of large sums of money for the funerals of relatives by families receiving aid from the city. This is done by using the money received from the insurance policy on the life of the deceased. These policies are often for more than \$100, and people suffering for the necessities of life will spend nearly the whole of the money so received for an extravagant funeral. In one case \$130 were paid; in another \$80 out of an insurance of \$100; and in another, \$65 out of an insurance of \$91. In every one of these cases the city was aiding the family, or was asked to aid within a short time after the funeral. When it is considered that the cost of a thoroughly respectable funeral, with a hearse, carriage, coffin, etc., is only \$28.50, it seems almost criminal to spend so much money in unnecessary and useless display.

The Board has decided not to aid in cases where a relative has recently been buried by the family at an expense of more than \$50, except in extraordinary cases. We feel that the poor have no right to call upon the taxpayers of the city of Boston to reimburse them for lavish funeral expenses.

The whole matter of expensive funerals deserves thoughtful consideration by charitable people, and it may be that the reform will have to come about through a change in public opinion. If the well-to-do people would set their poorer neighbors an example of simplicity and economy in this regard, much might be accomplished.

### THE CHARITY BUILDING.

Each year still further demonstrates the great advantages of this building, which groups together under one roof so many of the important charities of the city. The coöperation hereafter alluded to is made easy by this centralization of offices; the clerks, secretaries, visitors, and agents being thus able, without loss of time, to exchange information and obtain assistance. New York City is soon to have a similar building, devoted wholly to the offices of charitable organizations. A full list of the occupants of our building is annexed to this report.

### COÖPERATION.

The past year has seen a continuance of the hearty coöperation between the public and private charities which has for many years been so marked a feature of the charitable work of Boston. There has been a constant interchange of information and assistance between our Board and the Associated Charities, the St. Vincent de Paul Society, the Provident Association, the Roxbury Charitable Society, the Boston Dispensary, and many other less prominent societies. All through the city the officers and members of the various charitable societies are found helping our visitors, and being helped by them. A constant interchange of ideas and assistance is taking place. By these means our sources of information are increased, the usefulness of our work is made greater, and the wants of our poorer citizens are better understood and more adequately supplied.

### STATISTICS.

Accompanying this report will be found a carefully prepared statement of the receipts and expenditures of the department during the thirteen months; also a close analysis of said expenditures; also the schedule of property belonging to this department.

In the appendix is given a copy of an important decision of the Supreme Court relating to settlements.

Respectfully submitted,  
in behalf of the Overseers of the Poor,

WILLIAM P. FOWLER,  
*Chairman.*

## REPORT OF THE FINANCES OF THE OVERSEERS OF THE POOR.

Statement of receipts and expenditures for thirteen months ending Jan. 31, 1892 :

## RECEIPTS.

Cash on hand, Jan. 1, 1891 . . . .	\$3,572 35
Drafts on City Treasurer, and requisitions for Temporary Home and Wayfarers' Lodge, . . . .	\$113,993 37
Cash from cities and towns . . . .	6,713 02
Cash from occupants of Charity Building, for heating . . . .	1,019 85
Cash from Commonwealth, for relief . . . . .	3,536 34
Cash from Commonwealth and other sources, for burials . . . .	2,748 28
Aid returned by paupers . . . .	35 03
Receipts on account of aid in City Hospital :—	
Cities and towns . \$6,306 90	
Commonwealth . 40,247 09	
	<hr/>
	46,553 99
Receipts from Commonwealth, for account of Carney Hospital cases . . . . .	2,113 84
Receipts from sale of old barrels, etc., by Supply Department . . . .	205 86
Receipts from Board of Cases in Temporary Home . . . . .	26 29
	<hr/>
	176,945 87
	<hr/>
	\$180,518 22

## EXPENDITURES.

Amount paid for burials . . . .	\$4,187 41
Amount paid cities and towns, for relief of Boston poor . . . .	6,656 46
Amount paid expenses Temporary Home . . . . .	5,833 46
Amount paid expenses Lodge for Wayfarers . . . . .	11,078 27
	<hr/>
<i>Amounts carried forward,</i>	\$27,755 60
	<hr/>
	\$180,518 22



<i>Amounts brought forward,</i>	\$27,755 60	\$180,518 22
Amount paid pensions and grants at office . . . . .	24,128 75	
Amount cash paid for immediate relief of persons having no settlement . . . . .	497 81	
Amount paid for fuel (837 $\frac{1}{4}$ tons coal and 18 $\frac{3}{8}$ cords wood),	6,548 66	
Amount paid for groceries and expense of delivery . . . . .	25,374 46	
Amount paid salaries of Treasurer and Secretary . . . . .	4,000 00	
Amount paid salaries of book-keeper and clerks . . . . .	4,900 00	
Amount paid salaries of visitors and agents . . . . .	10,600 00	
Amount paid office expenses . . . . .	1,679 28	
Amount paid transportation . . . . .	523 96	
Amount paid Charity Building, expenses . . . . .	5,617 08	
Amount paid medical attendance and medicine . . . . .	2,377 95	
	<hr/>	
	\$114,003 55	
Cash paid City Hospital . . . . .	46,553 99	
	<hr/>	
	\$160,557 54	\$180,518 22
Cash paid City Collector . . . . .	14,284 67	
Cash paid Carney Hospital, as received from Commonwealth,	2,113 84	
Cash balance, Jan. 31, 1892 . . . . .	3,562 17	
	<hr/>	
	\$180,518 22	\$180,518 22

Attest :

BENJ. PETTEE,  
Secretary.

## PAYMENTS TO COLLECTOR DURING THIRTEEN MONTHS.

Receipts from occupants of Charity Building, for heating . . . . .	\$1,019 85
Receipts from cities and towns . . . . .	6,713 02
Receipts from the State, for burials . . . . .	2,289 99
Receipts from the State, for relief of sick and wife settlement cases . . . . .	2,150 44

*Amount carried forward,*

Digitized by \$12,173 30

<i>Amount brought forward,</i>	\$12,173 30
Receipts from the State for temporary aid .	1,385 90
Receipts for sundry burials refunded by relatives . . . . .	458 29
Receipts from paupers, aid refunded by them, .	35 03
Receipts from sale of barrels by Supply Department . . . . .	205 86
Receipts for board in Temporary Home . . .	26 29
	<hr/>
	<u>\$14,284 67</u>

## EXPENDITURES ON ACCOUNT OF CHARITY BUILDING.

Fuel, 310 tons coal . . . . .	\$1,501 50
Engineer's salary . . . . .	1,800 00
Janitor's salary . . . . .	1,200 00
Watering streets . . . . .	37 50
Gas . . . . .	157 17
City meter-rates . . . . .	113 00
Sundries . . . . .	41 14
Extra labor in boiler-house and building .	65 00
Repairs . . . . .	40 77
Furnishings . . . . .	56 25
Fire-proof vault for old records . . . . .	604 75
	<hr/>
	\$5,617 08

Deduct estimated cost of heating the Temporary Home, included in the above . . . . .	\$1,566 31
Also amount received from occupants of building . . . . .	1,019 85
	<hr/>
	2,586 16
	<hr/>
Net cost . . . . .	<u>\$3,030 92</u>

## EXPENDITURES FOR CITY TEMPORARY HOME.

Groceries, provisions, etc. . . . .	\$2,793 54
Salaries . . . . .	1,680 00
Fuel and gas, 35 tons coal, 4 cords wood .	402 18
Water-rates . . . . .	248 40
Watering streets . . . . .	37 50
Medical attendance and medicine . . . . .	186 72
Furniture and household goods . . . . .	243 16
Extra labor . . . . .	30 60
	<hr/>

*Amount carried forward,*

Digitized by Google \$5,622 10

<i>Amount brought forward,</i>	\$5,622 10
Sundries . . . . .	109 54
Repairs . . . . .	101 82
Estimated cost of heating, included in Charity Building expenditures . . . . .	1,566 31
	<hr/>
	\$7,399 77
Deduct receipts for board and medical relief of sundry persons . . . . .	26 29
	<hr/>
Net cost . . . . .	<u>\$7,373 48</u>

## EXPENDITURES FOR LODGE FOR WAYFARERS.

Salaries . . . . .	\$3,486 86
Groceries and provisions . . . . .	5,272 68
Furnishing goods, bedding, and furniture . . . . .	595 40
Fuel and gas (60 tons coal, 20 cords wood), . . . . .	1,027 22
Repairs, etc. . . . .	116 97
Stationery and printing . . . . .	149 96
Water-rates . . . . .	340 80
Sundries . . . . .	64 38
Extra labor . . . . .	24 00
	<hr/>
	<u>\$11,078 27</u>

## FAMILIES AIDED BY THE BOARD DURING THE THIRTEEN MONTHS ENDING JAN. 31, 1892.

- 1,659 having settlements here, aided directly from this office,  
or by agents in the outlying districts.  
249 having settlements here, aided in other cities and towns  
through the Overseers of the Poor of those places.  
204 families, of which the man is unsettled, the wife and  
children having a settlement here.  
233 residing here, having settlements in other cities and  
towns, which refund amount of relief granted.  
312 unsettled cases, aided on account of the State.  
170 non-settlement cases, temporarily aided.

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2,827 families, representing 8,481 persons.

STATEMENT OF AID RENDERED IN THE SEVERAL DISTRICTS  
OF THE CITY.

Total aid in Charlestown . . . .	\$7,326 17
“ “ East Boston . . . .	2,912 68
“ “ North and West Ends . . .	6,809 85
“ “ Middle district (State street to Dover street) . . . .	7,334 15
“ “ South of Dover street to Rox- bury . . . .	8,376 72
“ “ South Boston . . . .	7,890 04
“ “ Roxbury . . . .	15,585 79
“ “ Dorchester . . . .	2,009 00
“ “ West Roxbury . . . .	2,694 79
“ “ Brighton . . . .	1,437 53
Aid rendered at this office to persons living out of the city, but having a settlement here . . . .	1,659 62
	<hr/>
	\$64,036 34
Amount paid other cities and towns for aid rendered Boston poor . . . .	6,656 46
	<hr/>
	<u>\$70,692 80</u>

NUMBER AIDED IN EACH OF THE PAST TWENTY-FIVE  
MONTHS.

1890. Jan., 1,543 families.	1891. Jan., 1,490 families.
Feb., 1,504 “	Feb., 1,483 “
March, 1,464 “	March, 1,452 “
April, 1,064 “	April, 1,055 “
May, 977 “	May, 963 “
June, 1,005 “	June, 985 “
July, 911 “	July, 932 “
Aug., 936 “	Aug., 897 “
Sept., 1,002 “	Sept., 960 “
Oct., 975 “	Oct., 952 “
Nov., 998 “	Nov., 980 “
Dec., 1,383 “	Dec., 1,318 “
	1892. Jan., 1,334 “

## TRUST FUNDS IN THE HANDS OF THE OVERSEERS OF THE POOR.

*Pemberton Fund.*—This fund comprises bequests and gifts made to the city of Boston from 1760 to the present time from "A. B.," Daniel Oliver, Margaret Blackader, Alice Quick, Anne Wheelright, Mary Ireland, Benjamin Pemberton, Martha Stevens, Mrs. H. Driscoll, William Breed, Samuel Eliot, John Coffin Jones, Mary Belknap, "A Citizen of Boston," Anonymous, Miss Dr. Harriot K. Hunt, George Higginson, Walter E. Hawes, and Wm. B. Spooner. The most important, however, of the bequests was from Benjamin Pemberton, Esq., whose will was proved June 25, 1782, and for that reason his name has been given to the fund. The income of this fund is to be expended, at the discretion of the Overseers, in semi-annual payments to the poor of the city.

*Boylston Relief and Education Funds.*—These funds were from a bequest by John Boylston, who died in London, England. His will was proved June 12, 1795. One portion of the bequest is ordered to be paid to "poor and decayed householders of the town of Boston not under fifty years of age; persons of good character, and reduced by the acts of Providence, not by indolence, extravagance, or other vice." The other portion to be applied to the "nurture and instruction of poor orphans and deserted children of the town of Boston until fourteen years of age."

*Mason Fund* was a bequest from Jonathan Mason, by will dated July 15, 1798, interest to be paid annually to the chaplain of the almshouse or workhouse; interest to be added until one is appointed. The interest is now paid semi-annually towards the salary of the chaplain of the House of Industry.

*Dexter Fund* was a bequest from Samuel Dexter, by will dated May 7, 1811, for supplying firewood or coal to such objects of charity as are not supported in the almshouse, though sometimes relieved by the Overseers of the Poor.

*Jeffries Fund* was a bequest by David Jeffries, former Town Treasurer. Will dated January, 1786. "Income to be applied to the purchase of tea, coffee, chocolate, and sugar, for the refreshment of those persons who, in the providence of God, are or shall be obliged to seek refuge in the almshouse, after having lived reputably; but always giving preference to the pious poor."

*Lucy Bullman Charity* consists of an estate on Cambridge and Joy streets, in this city, which came into the possession



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of the city of Boston, in accordance with the will of Lucy Bullman, proved at Probate Court, Suffolk County, Jan. 9, 1832, in which it is provided that, upon the death of certain persons therein named, said estate is given to the city of Boston, upon the condition that the estate should never be sold, but the income used for the benefit of the poor. By a vote of the City Council, approved by the Mayor, Jan. 4, 1873, this estate was placed in charge of the Overseers of the Poor.

*The David Sears Charity* is a fund contributed by the late Hon. David Sears for the relief of the poor, the income only to be expended "in aid and for the support of citizens or families who may have seen better days, and for charity in all its forms, in such a manner as may best tend to alleviate the sufferings of human life and render the condition of the poor more comfortable."

*Pierce Fuel Fund.* — The legacy of Caleb Pierce to the city of Charlestown, accepted by the City Council of that city, May, 1861. "Income to be expended in the purchase of fuel, to be distributed to those indigent widows whose husbands, before their decease, had resided in Charlestown at least one year, and the said widows still continuing to reside in Charlestown at the time of receiving said bounty. Income payable annually to the Trustees of the Charlestown Poor Fund."

*Holton Protestant Poor Fund.* — A bequest by James Holton to the inhabitants of the town of Brighton. "Income to be annually expended forever in purchasing and distributing provisions among poor and indigent Protestant families in said town of Brighton, on Thanksgiving, or other holidays, or just previous to such holidays, to the end that such poor Protestant families may have the means, in some degree, of enjoying such holidays in common with their fellow-citizens; and I specially direct, that in such periodical distributions, unmarried Protestant females who are poor or needy shall receive a liberal share of provisions, and also other articles of comfort, such as such distributors shall deem to be the most conducive to the comfort and happiness of that lone class of citizens."

*Holton Protestant Pauper Fund.* — A bequest by James Holton to the inhabitants of the town of Brighton. "Income to be annually expended, in whole or in part, as necessity or circumstances may require, by the Selectmen of said town, in providing good and plentiful meals, on Thanksgiving Day, or other holidays, to the Protestant paupers of said Brighton." Unexpended income to be added to the principal.

*Stoughton Poor Fund.* — A bequest of Lieut.-Gov. William Stoughton, who died July 7, 1701. By his will he gave £50 to the relief of the poor of Dorchester, to be improved by the care of the Selectmen, the income to be distributed to the most needy inhabitants.

*Goodnow Fund.* — A bequest of Elisha Goodnow (to be paid over upon the decease of his wife) to the city of Boston and its assigns, "to be invested and the income applied forever to and for the relief, assistance, and support of the poor, sick, and infirm in said city, not supported by the said city in its almshouse, in such manner as the said city, or the government or officers thereof, may deem most judicious, but without reference to the religious faith or belief of those who may apply for or need the assistance from this fund." \$5,000, received April 29, 1885.

*Rachel T. Stevens Fund.* — A bequest of Rachel T. Stevens, the net income to be paid (after the death of a person named in the will) "for the support and maintenance of poor, worthy, Protestant single women of Boston, who have arrived at the age of fifty years (not including widows), paying to each of such women during her life the sum of one hundred dollars in semi-annual payments. Upon the marriage of any beneficiary under this will no further payment of money is to be made to her, nor is any further payment of income to be made to any beneficiary who becomes unworthy of help under this trust."

*Moses Hunt Fund, for the Destitute.* — "The income to be devoted to the relief and welfare of Protestant destitute residents of that part of said Boston which was Charlestown." \$10,000, received March 7, 1889, has been invested in a city of Boston note.

## OVERSEERS OF THE POOR, 1891-92.

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[One-third of the Board is appointed annually by the Mayor, subject to the approval of the Board of Aldermen.]

*Terms expire April 30, 1892.*

WILLIAM P. FOWLER, *Chairman*. M. C. CURRY,  
THOMAS SPROULES, ASA H. CATON.

*Terms expire April 30, 1893.*

ISAAC T. CAMPBELL, JOHN TURNER,  
ANDREW P. FISHER, JAMES B. AYER.

*Terms expire April 30, 1894.*

THOS. DOWNEY, JR., RICHARD C. HUMPHREYS,  
JOHN LAMB, ANNETTE P. ROGERS.

FREDERIC W. LINCOLN, *Treasurer*.  
BENJAMIN PETTEE, *Secretary*.

The Board meets on the first Wednesday of every month, at its office in Charity Building.

The Overseers of the Poor are likewise incorporated as a Board of Trustees of John Boylston's and other charitable funds, left for the assistance of persons of good character and advanced age, "who have been reduced by misfortune to indigence and want."

## COMMITTEES.

*Investigation and Relief.*

Messrs. Fowler, Campbell, Curry, Sproules, Ayer, and  
Turner, and Miss Rogers.

*Finance and Accounts.*

Messrs. Fisher, Caton, and Downey.

*Employments and Settlements.*

Messrs. Ayer, Campbell, and Downey.

*Supplies.*

Messrs. Curry, Turner, and Caton.

*Temporary Home.*

Messrs. Caton, Humphreys, and Miss Rogers.

*Lodge for Wayfarers, and the Wood-yard.*

Messrs. Humphreys, Sproules, and Fowler.

*Building.*

Messrs. Sproules, Fisher, and Lamb.

*Real Estate.*

Messrs. Fowler, Fisher, and Downey.

*Medical.*

Messrs. Campbell, Ayer, and Curry.

*Burials.*

Messrs. Turner, Downey, and Lamb.

OVERSEERS OF THE POOR WERE FIRST CHOSEN  
IN BOSTON IN 1691.

## MEMBERS OF THE BOARD FROM ITS REORGANIZATION IN 1864.

Allen, Ira, 1868 to 1875 (died Aug. 29).  
Amory, Thomas C., 1864 to April, 1883.  
Atkins, Ebenezer, 1864 to Dec. 31, 1867 (died).  
Ayer, James B., April, 1890 to date.  
Buckley, Joseph, 1864 to 1875.  
Blasland, Thomas, 1866 to 1873 (died Sept. 5).  
Bailey, Joseph T., Nov., 1866, to 1871.  
Bigelow, Alanson, 1875 to April, 1881.  
Burnham, Daniel S., from April, 1885, to May, 1891.  
Crane, P. M., 1870 to 1882 (died Aug. 13).  
Cruft, Samuel B., 1871 to 1877.  
Campbell, Isaac T., 1873 to date.  
Curtis, George, 1876 to Sept., 1878.  
Campbell, B. F., Oct., 1882, to July, 1888.  
Curry, M. C., 1883 to date.  
Caton, Asa H., Dec., 1890, to date.  
Dore, John P., 1879 to May, 1891.  
Davis, James G., 1880 to 1886.  
Downey, Thos., Jr., 1887 to April, 1890, and May '91,  
to date.  
Fabyan, George, 1869 to 1874 (died May 25).  
Fisher, Andrew P., from April, 1889, to date.  
Fowler, William P., from April, 1889, to date.  
Friedman, Solomon, 1886 to Dec., 1890.  
Gorman, William, 1877 to 1880 (died Jan.).  
Gargan, Thomas J., 1874 to 1875.  
Griffin, Martin, 1864 to 1869.  
Hale, George S., 1865 to 1871.  
Hull, Liverus, 1874 to April, 1883.  
Humphreys, Richard C., May, 1890, to date.  
Lamb, John, 1891 to date.  
Lincoln, F. W., May, 1867, to April, 1878.  
Little, James L., Nov., 1865, to Nov., 1876.  
Lothrop, Loring, 1864 to April, 1870.  
Lawrence, William R., 1864 to Nov., 1865.  
Madden, Daniel A., 1883 to April, 1889.  
McLean, Charles R., 1868 to 1871.  
Newmarch, S., 1864 to 1865.  
Newell, Otis K., from July, 1888, to May, 1891.  
O'Brien, John, 1871 to 1874.  
Parker, F. E., 1864 to 1875.

Prescott, Washington L., 1875 to Dec., 1878.  
Pickering, H. W., 1875 to April, 1884.  
Parker, Augustus, Nov., 1878, to April, 1880.  
Ring, Thomas F., Nov., 1878, to April, 1887.  
Richards, Henry L., 1877 to Aug., 1878.  
Richards, Joel, 1864 to 1866.  
Rogers, Annette P., 1891 to date.  
Scott, John A., April, 1881, to April, 1884.  
Spooner, William B., 1864 to 1868.  
Sweetser, John, Dec., 1878, to April, 1879.  
Stackpole, Stephen A., 1880 to April, 1883.  
Sproules, Thomas, 1883 to date.  
Sawin, Samuel D., April, 1884, to July, '90 (died).  
Temple, Thomas F., 1870 to April, 1890.  
Turner, John, Sept., 1890, to date.  
Warren, John W., 1864 to April, 1866.  
Winthrop, Robert C., 1864 to May, 1867.  
Willcutt, Levi L., 1878 to April, 1885.  
Welch, Wm. J., April, 1884, to April, 1889.

#### *Chairmen.*

Winthrop, Robert C., July, 1864, to May, 1867.  
Lincoln, F. W., June, 1867, to April, 1878.  
Temple, Thomas F., April, 1878, to Dec. 31, 1878, and  
from April, 1881, to April, 1890.  
Amory, Thomas C., Jan., 1879, to April, 1881.  
Newell, Otis K., April, 1890, to May, 1891.  
Fowler, William P., May, 1891, to date.

#### *Treasurers.*

Warren, John W., July, 1864, to Jan., 1865.  
Norcross, Otis, Jan., 1865, to Jan., 1876.  
Higginson, George, 1876 to 1878.  
Lincoln, M. F. W., April, 1878, to date.

#### *Secretaries.*

Pratt, John, July, 1864, to Nov., 1874 (died).  
Pettee, Benjamin, Nov., 1874, to date.

## OCCUPANTS OF CHARITY BUILDING.

*Basement Rooms.*

City Physician . . . . .	Nos. 3 and 4
Homœopathic Dispensary . . . . .	No. 5
United Hebrew Benevolent Association . . . . .	" 13
Room for Society and Committee Meetings, . . . . .	" 14

*First-Story Rooms.*

Overseers of the Poor . . . . .	Nos. 15 to 20
State Aid Paymaster . . . . .	" 21 to 24
Industrial Aid Society . . . . .	" 25 to 28

*Second-Story Rooms.*

Boston Ladies' Sewing Circle . . . . .	No. 31
Boston Provident Association . . . . .	Nos. 32, 33, 38, and 40
Society of St. Vincent de Paul . . . . .	No. 36
German Aid Society . . . . .	" 39

*Third-Story Rooms.*

Associated Charities . . . . .	No. 41
Boston Children's Aid Society . . . . .	" 43
Coöperative Society . . . . .	" 48
Ward 6 Conference, Associated Charities . . . . .	" 49
Ward 8 Conference, Associated Charities . . . . .	" 50
Ward 7 Conference, Associated Charities . . . . .	" 51

In addition to the above, the Young Men's Benevolent Society holds its monthly meetings here.



### SCHEDULE OF PROPERTY IN CHARGE OF THE BOARD.

Charity Building : 4 rooms, occupied by the Board and its officers, have furniture needed for their use, desks, cases, chairs, etc.

City Temporary Home is supplied with furniture necessary to provide temporary accommodations for homeless women and children.

The Lodge for Wayfarers, for men, has furniture suitable for its use. At the Lodge, and at the wharf hired for the storage of wood, there are at the present time about 656 cords of wood. Also four horses, four wagons, and four sets of harness.

In a storehouse in the yard of Charity Building the following groceries for delivery to the poor, and store-fixtures :

21 bbls. sugar.	67 bushels beans.
16 boxes soap.	9½ bbls. oatmeal.
2 bbls. Indian meal.	1,700 lbs. salt fish.
6½ bbls. rice.	130 bushels potatoes.
11 bbls. salt pork.	1½ bushels peas.
117 bbls. flour.	⅛ bbl. cotton twine.
66 packages paper bags.	½ bbl. jute twine.
180 baskets.	1,200 tags.
300 lbs. paper.	11 dry measures.
5 scales.	8 tunnels.
5 scoops.	5 chairs.
2 desks.	1 truck.
19 chests tea.	

## APPENDIX.

### DECISION.

CITY OF FALL RIVER *vs.* CITY OF TAUNTON.

BRISTOL, OCT. 24, 1889.

NOVEMBER 12, 1889.

Present, Devens, C., Allen, Holmes, Knowlton, JJ.

*Pauper, Soldier, Minor, Military Settlement.*

Under the Pub. Stats., Chap. 83, Sect. 1, Clause 11, a soldier, who was a minor at the time he enlisted into the military service of the United States, during the late Civil War, as a part of the quota of a city or town, acquired, together with his wife or widow and minor children, the same settlement therein as if he had been of full age at the time of his enlistment.

*Contract.* — The declaration alleged that Edwin R. Burr, on March 1, 1864, being then eighteen years old, enlisted in Company E, 58th Regiment, Massachusetts Volunteers, and was duly mustered into the military service of the United States during the late Civil War, to the credit and upon the quota of the defendant city, and served until he was honorably discharged on July 14, 1865; that Edwin R., whose present residence was in New Bedford, had never otherwise gained a settlement within this Commonwealth; that Orianna Burr, who was married to Edwin R. in 1864, was on April 24, 1888, committed to the lunatic hospital located in the defendant city as an insane pauper; that she was at the time of her commitment residing in Fall River, and had resided there more than five years continuously since she became twenty-one years of age; that the plaintiff was called upon to pay, and did pay on August 8, 1888, the sum of \$31.57 for the support of Orianna at such hospital; that the plaintiff gave the defendant due notice of such payment, and of its claim that Orianna had a legal settlement in the defendant city; but the defendant denied that Edwin R. had ever gained a settlement therein, and that the defendant owed the plaintiff \$31.57 with interest thereon.

The defendant demurred to the declaration on the ground that it did not set forth a legal cause of action. The Superior Court overruled the demurrer, and the defendant appealed to this Court.

A. M. Alger for the defendant.

J. F. Jackson for the plaintiff.

KNOWLTON, J. If the husband of the pauper gained a settlement by his enlistment and service as a soldier upon the quota of the defendant city in the late Civil War, the demurrer must be overruled.

It has undoubtedly been a part of the wise and humane policy of the Commonwealth, in its legislation for the relief of paupers, to prevent, so far as possible, the compulsory separation of members of a family. A wife follows the settlement of her husband, and legitimate children follow the settlement of their father, if he has any in the State, and if he has none they follow that of their mother, if she has any. (Pub. Stats., Chap. 83, Sect. 1.)

The Stat. of 1865, Chap. 230, which first created military settlements, was passed when there were many soldiers in the State, who had not attained their majority, and it recognized this policy by limiting its provisions to persons who were at the time of enlistment at the age of twenty-one years.

It also contained an exception of those who had not resided in the city or town six months, next previous to the time of entering service.

It further provided that a person who by reason of want of age or residence should not be entitled to a settlement under the act should nevertheless be entitled, for himself, his wife or widow, or minor children, to support in the city or town, if they should fall into distress therein, and should not be sent thence to the State almshouse, nor removed to any other place.

The Stat. of 1870, Chap. 392, Sects. 3, 5, 6, repealed the former legislation upon this subject and substituted the same law, with the exception of the provisions, as to age and inhabitancy, and the provision last above stated, and with a clause including persons who served on the quota of the Commonwealth, but not on the quota of any city or town. At the time of the passage of this act, the war had been ended more than five years, and there were very few, if any, who served a year in the war who had not attained their majority.

We think the omission by the Legislature of the original provisions in regard to minors was for the purpose of making a material change in the statute, and of including a large class who had become of full age and who were not included in the former statute, because many of them were then minors.

The extension of the liberal provisions of the law by the Stat. of 1871, Chap. 379, Sect. 2, and the reenactment of the Stat. of 1878, Chap. 190, in the Pub. Stats., Chap. 83, Sect. 1, Cl. 11, confirm this opinion.

Since the passage of the Stat. of 1870, Chap. 392, soldiers who were minors at the time of enlistment are entitled to the same benefits under this law as if they had been of full age.

Demurrer overruled.



# ANNUAL REPORT

OF THE

## DEPARTMENT FOR THE SEALING OF WEIGHTS AND MEASURES,

FROM JANUARY 1, 1891, TO FEBRUARY 1, 1892.

DEPARTMENT FOR THE SEALING OF WEIGHTS AND MEASURES,  
BASEMENT OF COURT-HOUSE, Feb. 10, 1892.

*To His Honor the Mayor and the City Council of the City  
of Boston:*

GENTLEMEN: In compliance with Section 4 of the Ordinances relating to the Department of Weights and Measures of the City of Boston, the following report of the expenditures and operations of this department from Jan. 1, 1891, to Feb. 1, 1892, is respectfully submitted.

The force in this department consists of one sealer, five deputy sealers, and one messenger, and the amount of work which has been performed by them will appear in the following report:

The unexpended balance of the appropriation for the financial year 1890-91 on hand Jan. 1,	
1891, was . . . . .	\$3,751 07
The appropriation for nine months, from May 1, 1891, to Feb. 1, 1892, was . . . . .	
	9,000 00
<i>Amount carried forward,</i>	
	<u>\$12,751 07</u>

## CITY DOCUMENT No. 34.

<i>Amount brought forward,</i>	\$12,751 07
There was transferred to appropriation . . . . .	292 90
	<hr/>
Total amount . . . . .	\$13,043 97
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## CLASSIFICATION OF EXPENSES.

Expenditures from Jan. 1, 1891,  
to Feb. 1, 1892 :

Salaries and messenger's pay . . . . .	\$10,797 70
Board of three horses . . . . .	936 00
Shoeing three horses . . . . .	113 97
Repairs on wagons, sleighs, and harnesses . . . . .	294 52
Tools, hardware, etc. . . . .	147 11
Stationery . . . . .	70 18
Printing and printing-stock . . . . .	124 36
Advertising . . . . .	24 96
Repairing Standards . . . . .	41 04
Ferry-tolls and car-fares . . . . .	6 00
Telephone service . . . . .	121 75
New Standards, scales, and weights, . . . . .	251 19
Incidentals . . . . .	114 38
	<hr/>

Total expenditures from Jan. 1, 1891, to Feb. 1, 1892 . . . . .	\$13,043 16
Balance of appropriation unex- pended at end of fiscal year 1890-91 . . . . .	81
	<hr/>

\$13,043 97

Section 1 of Chapter 123 of the Acts of 1876 provides that "the sealer of weights and measures shall annually give public notice, by advertisement, or by posting notices in one or more public places, to all inhabitants or persons having a usual place of business therein, who use scales, weights, or measures, for the purpose of selling any goods, wares, merchandise, or other commodities, or for public weighing, to bring in their scales, weights, and measures to be adjusted and sealed."

The same section also provides that "in those cities and towns where a salary is paid to the sealer of weights and measures no fees shall be charged for such services."

In compliance with the provisions of the foregoing section, it is customary for the Sealer to notify annually, in May, all

such persons as are referred to by the statutes, by publishing the required notice in the daily papers, to bring to this office their scales, weights, and measures, to be tested and sealed.

Section 2 of Chapter 123 of the Acts of 1876, amended by Section 2 of Chapter 151 of the Acts of 1877, provides that, "at any time after said notice, the said sealer of weights and measures shall go to the houses, stores, and shops of persons mentioned in the foregoing section, who have neglected to comply with the notice given thereunder, and having entered the same, with the assent of the occupants, shall adjust and seal their scales, weights, and measures, and shall be entitled to receive for said service the compensation set forth in Chapter 51, Section 14, of the General Statutes.

The customary notice having been published, after a reasonable time the deputy sealers were instructed to visit the places where scales, weights, and measures were in use; and, having informed the owners thereof that it was optional with them whether their scales, etc., should be tested at this office or at their place of business, and in the former case no charge would be made for such services, proceeded thereafter, with their consent, to test and seal the same.

The schedule of fees for work done outside the office is as follows :

#### FOR TESTING.

Platform scale (5,000 lbs. capacity, and upwards)	. \$1 00
“ “ (less than 5,000 lbs. capacity)	. . 50
Dormant “ ( “ “ “ “ “ )	. . 50
Beam “ (capacity over 1,000 lbs.)	. . 50
Counter platform scale (large size)	. . . 50
“ “ “ (small size)	. . . 25
Butchers' scale, spring balance, counter balance, or trip scale, each	. . . . . 03
Weights, each	. . . . . 03
Measures, wet or dry, each	. . . . . 03
Yardsticks, each	. . . . . 03

#### ADJUSTING.

For adjusting or repairing any scale, A FAIR AND REASONABLE COMPENSATION.

For weights, when either light or heavy, NOT TO EXCEED TEN CENTS EACH.

For yardsticks, not to exceed five cents each.

For measures, wet or dry, when either large or small, not to exceed ten cents each.

For adjusting or repairing any special weight or measure, not mentioned above, a fair and reasonable compensation.

#### OPERATIONS OF THE DEPARTMENT.

From Jan. 1, 1891, to Feb. 1, 1892 :

Number of scales, 5,000 lbs. to 80 tons, tested	595
“ dormants less than 5,000 lbs., “	659
“ portable platforms, “	2,210
“ butchers' scales, “	317
“ spring balances, “	1,332
“ trip scales, “	2,689
“ counter balances, “	549
“ public weighers' scales, “	5
“ beams or balances, “	136

Total number of scales tested	8,492
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Number of scales tested and found correct	7,111
“ “ “ “ adjusted before sealing,	825
“ “ “ “ tagged for repairs, and use forbidden	556
“ “ that were repaired as ordered	328
“ “ that were not repaired as ordered,	228

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Number of weights tested and found correct	24,259
“ “ “ “ found light and ad- justed	2,788
“ “ “ “ found heavy and ad- justed	712
“ “ “ “ condemned	46

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Total number of weights tested	27,805
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Number of dry measures tested and found correct	3,713
“ “ “ “ “ adjusted	113
“ “ “ “ “ condemned	121

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Total number of dry measures tested	3,947
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Number of wet measures, including milk cans, tested and found correct . . . . .	113,687
Number of wet measures, including milk cans, tested and adjusted . . . . .	1,268
Number of wet measures, including milk cans, tested and condemned . . . . .	1,031
	<hr/>
Total number of wet measures, including milk cans, tested . . . . .	<u>115,986</u>

Number of yardsticks tested and found correct . . . . .	308
“ “ “ “ adjusted . . . . .	55
“ “ “ “ condemned . . . . .	19
	<hr/>
Total number of yardsticks tested . . . . .	<u>382</u>

Number of charcoal-baskets tested and sealed . . . . .	<u>25</u>
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Number of grain-tubs tested and sealed . . . . .	<u>7</u>
--	----------

Number of coal-baskets tested and found correct . . . . .	568
“ “ “ “ “ condemned . . . . .	10
	<hr/>
Total number of coal-baskets tested . . . . .	<u>578</u>

The system of testing and sealing at their places of business gives general satisfaction. Many, however, object to the charges, and send their scales, etc., to this office; and in this way the following work has been done, which is included in the “operations of the department,” and for which no fees are allowed.

The amount of work done in the office from Jan. 1, 1891, to Feb. 1, 1892, was as follows :

Scales of all descriptions tested . . . . .	1,336
Weights tested . . . . .	5,004
Dry measures tested . . . . .	1,059
Wet measures, including milk cans, tested . . . . .	113,578
Yardsticks tested . . . . .	382
Charcoal-baskets tested . . . . .	25
Grain-tubs “ . . . . .	7
Coal-baskets “ . . . . .	578



## RECAPITULATION.

Total number of scales tested from Jan. 1, 1891, to Feb. 1, 1892 . . . . .	8,492
Total number of weights tested from Jan. 1, 1891, to Feb. 1, 1892 . . . . .	27,805
Total number of dry measures tested from Jan. 1, 1891, to Feb. 1, 1892 . . . . .	3,947
Total number of wet measures, including milk cans, tested from Jan. 1, 1891, to Feb. 1, 1892,	115,986
Total number of yardsticks tested from Jan. 1, 1891, to Feb. 1, 1892 . . . . .	382
Total number of charcoal-baskets tested from Jan. 1, 1891, to Feb. 1, 1892 . . . . .	25
Total number of grain-tubs tested from Jan. 1, 1891, to Feb. 1, 1892 . . . . .	7
Total number of coal-baskets tested from Jan. 1, 1891, to Feb. 1, 1892 . . . . .	578

## EARNINGS OF THE DEPARTMENT.

Total amount of earnings from Jan. 1, 1891, to Feb. 1, 1892 . . . . .	\$3,187 76
The amount due this department is . . . . .	46 58

Amount collected which has been paid to the  
City Collector to be credited to the Depart-  
ment of Weights and Measures . . . . . \$3,141 18

INVENTORY OF PROPERTY IN THE SEALER'S OFFICE BELONG-  
ING TO THE CITY OF BOSTON, FEBRUARY 1, 1892.*Standards.*

- 1 County avoirdupois balance and cabinet.
- 1 avoirdupois balance; capacity, 1 drachm to 50 lbs.
- 1 troy gold “
- 1 troy jewellers’ “
- 1 apothecary “
- 1 fifty-pound test “
- 2 analytical balances.
- 1 set steel avoirdupois weights, 5, 10, 20, 25, and 50 lbs.  
(5 weights.)
- 1 set brass avoirdupois weights, from 1 drachm to 4 lbs.  
(12 weights.)
- 1 set gold weights, from \$1 to \$5,000. (16 weights.)
- 2 sets weights, from 10 gr. to  $\frac{1}{100}$  gr. (20 weights.)

- 1 set weights, from 1 kilogram to 10 milligrams. (21 weights.)
- 1 set of troy weights, from 10 dwts. to  $\frac{1}{100}$  grain. (19 weights.)
- 1 set apothecary weights, from 1 oz. to  $\frac{1}{2}$  scruple. (7 weights.)
- 1 set gold weights, from  $\frac{1}{2}$  oz. to 150 oz. (11 weights.)
- 1 set gold weights, from  $\frac{1}{2}$  dwt. to 500 dwts. (14 weights.)
- 1 set troy cup-weights, from  $\frac{1}{2}$  oz. to 16 oz. (9 weights.)
- 1 set troy cup-weights, from  $\frac{1}{2}$  dwt. to 1,000 dwt. (11 weights.)
- 1 set troy weights, from 10 dwts. to 1,000 dwts. (9 weights.)
- 1 set troy weights, from  $\frac{1}{2}$  grain to 8 grains. (9 weights.)
- 1 set troy weights, from  $\frac{1}{2}$  dwt. to 4 dwts. (5 weights.)
- 1 set apothecary weights, from  $\frac{1}{2}$  scruple to 2 drachms. (6 weights.)
- 25 metric weights, from 1 milligram to 100 grams.
- 24 troy weights, from  $\frac{1}{100}$  grain to 1,000 grains.
- 5 brass yard measures.
- 2 sets iron liquid measures, from 1 gill to 1 gall. (12 measures.)
- 2 sets iron dry measures, from 1 qt. to  $\frac{1}{2}$  bushel. (10 measures.)
- 1 set apothecary weights, from 1 grain to 1 oz. (15 weights.)
- 1 set troy weights, from 1 grain to 1 oz. (14 weights.)
- 1 kilogram. 1 meter.

*Duplicates and Working Sets.*

- 4 try scales.
- 1 prescription balance.
- 1 trip scale and 3 weights.
- 2 sets steel Standard avoirdupois weights, from 5 to 50 lbs. (10 weights.)
- 1 set brass troy weights, from 1 grain to 500 dwts. (21 weights.)
- 1 set brass prescription weights. (34 weights.)
- 5 boxes try-scale weights, from 1 drachm to 4 lbs. (46 weights.)
- 21 brass hook weights, from 1 lb. to 16 lbs.
- 149 fifty-lb. iron weights.
- 4 sets copper liquid measures, from 1 gill to 1 gall. (24 measures.)
- 2 three-gallon and 1 two-gallon copper liquid measures. (3 measures.)
- 17 copper dry measures, from 1 gill to  $\frac{1}{2}$  bushel.

- 4 copper dry measures.
- 3 sets wooden “
- 4 charcoal-basket “
- 3 tin dry measures : 1 pk., 4 qts., 2 qts.

*Miscellaneous.*

- 1 large dormant scale and 6 weights ; capacity, 2,700 lbs.
- 2 cranes for dry measures.
- 2 glasses for slicking off.
- 6 brass shot-cups.
- 2 hammers for lifting gold weights.
- 1 copper scoop for jewellers' scales.
- 1 counter weight for “ “
- 5 syphons.
- 20 wooden blocks for adjusting tin measures.
- 3 tool-boxes.
- 3 boxes for measures.
- 3 horses.
- 4 wagons.
- 3 pung sleighs.
- 3 harnesses.
- 6 horse-blankets.
- 3 rubber wagon-covers.
- 3 halters.
- 3 surcingles.
- 3 weights and straps.
- 3 leather cushions for wagons.
- 3 sunshades for wagons.
- 3 whips.
- 3 feed-bags.

*Miscellaneous Tools.*

*Office Furniture.*

Safe, wardrobe-closet, umbrella-stand, ten chairs, two desks, work-benches, 2 clocks, counters, racks, stationery, water-cooler, 1 letter-press and stand, 2 settees.

The work of this department has been supplemented during the present year by the towns adjacent to the city, in which reside a large percentage of the dealers distributing milk in this city.

Greater scrutiny has been observed by the town sealers over such vendors as reside in their respective towns, and we have found the local town seal in many cases, thus reducing the number of cans to be sealed by this department. Of the 115,986 cans sealed by this department during the year, at least forty per cent. required adjusting before the same could be sealed.

Greater discrimination has been exercised in the matter of condemning milk cans as totally unfit for use. When the dealer was reputable and the inaccuracy of the cans such as could be remedied, either at this office or at the manufacturer's, we have given the dealer an opportunity to have such corrections made; thereby reducing the number of cans finally condemned from 4,936 during the previous year, to 1,031 during the present year — thus saving valuable property to the citizens coming in contact with the department.

The good effect of the scrutiny observed by this department over milk measures may be estimated by the following extract from a letter in our possession written by a leading manufacturer of glass milk jars outside of the State to a dealer doing business in Boston :

"We always give particular instructions to our factory in making bottles for Boston not to make them over 24½ oz. weight, so that they will hold a *full* quart; but presume on your order they did not take into consideration that it was a Boston bottle, and made them our regular weights."

In a specimen lot of these bottles tested by us — which were evidently of the "regular weights" — eighty per cent. were found to be *too small*, and were condemned.

I would most respectfully renew the recommendation made in previous reports, that the department be given an increased number of deputy sealers, as I believe that the efficiency of the work to be performed can be increased.

The law requires that all scales, weights, and measures shall be tested annually; and to do this requires, at present, all the force of the department. It would be unquestionably of great public service if, in addition to the annual sealing and testing, more frequent examinations be made; especially where we have reason to suspect that, after sealing has been done, the scales, weights, and measures have been tampered with.

I would also recommend that the fee system now in vogue in this department be entirely abolished, and that all

sealing, testing, and adjusting BE PERFORMED FREE OF ANY EXPENSE.

The revenue resulting from charges, as made at present, is small, yet it is viewed by the owners of scales, etc., as AN UNJUST TAX, both buyer and seller being benefited by correct weights and measures, while the expense falls, at present, entirely on the seller.

The more frequent examinations shown to be advisable in my recommendation for an increased force would not be open to the objections on the ground of charges, if the present fee system was abolished.

Respectfully submitted,

MICHAEL D. COLLINS,  
*Sealer of Weights and Measures.*



REPORT  
OF THE  
SINKING-FUNDS DEPARTMENT,  
FOR THE NINE MONTHS ENDING JAN. 31, 1892.

BOARD OF COMMISSIONERS OF SINKING-FUNDS,  
CITY HALL, March 30, 1892.

HON. NATHAN MATTHEWS, JR.,  
*Mayor of the City of Boston:*

SIR: The Board of Commissioners of Sinking-Funds have the honor of presenting the following report, showing the transactions during the nine months ending Jan. 31, 1892:

Amount of cash in treasury April 30, 1891,	\$3,867,395 17
Receipts during the year . . . . .	8,854,593 85
	<hr/>
	\$12,721,989 02
Payments during the year . . . . .	6,157,852 45
	<hr/>
Amount of cash Jan. 31, 1892 . . . . .	\$6,564,136 57
Total amount of investments April 30, 1891 .	\$20,272,600 00
	<hr/>
<i>Amounts carried forward,</i>	<i>\$20,272,600 00</i>
	<hr/>
	\$6,564,136 57

<i>Amounts brought forward,</i>		\$20,272,600 00	\$6,564,136 57
Investments purchased during the nine months	.	4,756,000 00	
		<hr/>	
		\$25,028,600 00	
Investments matured during the nine months	.	6,109,000 00	
		<hr/>	
			18,919,600 00
			<hr/>
Amount of funds Jan. 31, 1892	.	.	<u>\$25,483,736 57</u>

With this report will be found the report of the Treasurer, the annual statement of the Board, showing debt and funds, and a statement covering the work for eleven years.

Respectfully submitted for the Board,

A. DAVIS WELD,  
*Chairman.*

CITY OF BOSTON, Feb. 20, 1892.

*To the Board of Commissioners of Sinking-Funds of City of Boston:*

GENTLEMEN: The undersigned herewith presents his Annual Report as Treasurer of the Board of Commissioners of Sinking-Funds:

Balance of Cash April 30, 1891.....			\$3,867,395 17
Received in 1891-92:			
Interest on Bank Deposits .....	\$75,858 59		
Interest on Investments .....	675,310 68		
Interest on Sterling Debt, redeemed in London, Eng.....	48,748 55		
Revenue from Betterments, Sales of Land, etc.	75,985 59		
Appropriation for Debt, 1891-92.....	1,459,161 00		
Premium on Loans negotiated .....	14,120 00		
Revenue from Sale of Machine-Shop.....	62,000 00		
Surplus Income from Water-Works:			
Cochituate Water.....	\$275,014 05		
Mystic Water.....	59,395 39		
	334,409 44		
Investments matured.....	6,109,000 00		8,854,593 85
			\$12,721,989 02
Disbursed in 1891-92:			
City Treasurer for redemption of matured debt .....	\$1,394,982 71		
Cost of redemption of debt in London.....	1,081 22		
	\$1,396,063 93		
Premium on Investments purchased.....	4,183 68		
Interest on Investments purchased .....	1,604 84		
Investments purchased.....	4,768,000 00		6,167,862 45
			\$6,564,136 57
Cash balance Jan. 31, 1892.....			\$6,564,136 57

## RESOURCES OF THE SINKING-FUNDS JAN. 31, 1892.

Sinking-Fund.	Cash.	Investments.	Total Resources.
Old .....	\$146,258 45	\$2,000 00	\$148,258 45
Consolidated Street Improvement.....	281,434 86	1,550,000 00	1,832,034 86
Burnt District .....	1,611,645 97	3,632,840 00	5,244,485 97
Twenty Year .....	1,097,047 60	5,842,560 00	6,939,607 60
Ten Year .....	1,596,473 48	1,470,000 00	3,066,473 48
Public Park .....	148,085 01	329,000 00	477,085 01
Public Park Construction.....	160,266 19	150,600 00	310,866 19
Special Loans.....	116,513 89	187,000 00	303,513 89
Cochituate Water .....	1,231,545 34	5,240,000 00	6,471,545 34
Mystic Water.....	87,208 70	463,000 00	550,208 70
Suffolk County Court-House.....	68,152 41	52,000 00	121,152 41
Suffolk County, General .....	16,653 42		16,653 42
Moneys for reduction of debt.....	1,851 27		1,851 27
	\$6,564,136 57	\$18,919,600 00	\$25,483,736 57



## CASH DEPOSITED IN BANKS, JANUARY 31, 1892.

Cash deposited in National Banks and Trust  
Companies, January 31, 1892:

## NATIONAL BANKS.

Atlantic	\$107,502 84
Atlas	317,191 96
Blackstone	166,395 81
Boylston	107,502 32
Boston	104,093 67
Broadway	27,205 81
Bunker Hill	77,545 82
Central	107,671 61
Columbian	100,489 63
Continental	161,551 74
Elliot	150,345 44
Everett	63,899 81
First Ward	32,389 10
First	201,627 06
Fourth	55,594 69
Freemans	83,178 69
Lincoln	64,497 26
Manufacturers	75,368 25
Market	172,101 86
Massachusetts	108,957 58
Mechanics	26,278 39
Mount Vernon	33,168 53
National Bank of Commerce	150,505 48
"    "    the Commonwealth	57,357 09
"    "    North America	215,319 52
"    City Bank	10,798 69
"    Eagle	104,309 83
"    Exchange Bank	108,529 38
"    Hide and Leather Bank	212,089 02
"    Rockland Bank	50,817 50
"    Security Bank	43,784 27
"    Union Bank	129,221 06
"    Webster Bank	322,853 53
New England	161,271 16
North	161,458 34
Old Boston	59,081 01
Peoples	23,320 91
Second	262,554 76
Shawmut	151,384 44
Shoe and Leather	4,856 01
State	428,775 18
Third	160,871 81
Tremont	313,821 24
Winthrop	25,049 32

## TRUST COMPANIES.

American Loan and Trust Company	100,197 26
Boston Safe Deposit and Trust Company	100,485 44
Massachusetts Loan and Trust Company	100,477 27
Mercantile Loan and Trust Company	25,087 18
New England Trust Company	100,180 82
Old Colony Trust Company	150,477 28

Merchants National Bank	484,644 40
-------------------------	------------

\$6,564,136 57

Investments, January 31, 1892:

City of Boston 6% Bonds	\$2,468,000 00	
"    "    5%    "	124,000 00	
"    "    4%    "	5,573,600 00	
"    "    3½%  "	1,834,000 00	
"    "    3¼%  "	109,000 00	
"    "    3%    "	898,000 00	
Cochituate Water 6% Bonds	\$3,802,000 00	\$11,006,600 00
"    "    4%    "	1,716,000 00	
"    "    3½%  "	400,000 00	
"    "    3%    "	200,000 00	
Mystic Water 6% Bonds	\$52,000 00	
"    "    4%    "	18,000 00	
"    "    3½%  "	240,000 00	
"    "    3¼%  "	35,000 00	
		6,118,000 00
		345,000 00

Carried forward

\$17,469,600 00 \$6,564,136 57

# SINKING-FUNDS DEPARTMENT.

5

<i>Brought forward</i> .....		\$17,469,600 00	\$6,564,136 57
City of Charlestown 6% Bonds.....		2,000 00	
County of Suffolk 3% ".....		748,000 00	
Boston & Maine Railroad:			
4½ Loans.....	\$300,000 00		
4½ ".....	200,000 00		
		500,000 00	
Old Colony Railroad 4½ Loan.....		200,000 00	
			18,919,600 00
<b>Total Resources January 31, 1892</b> .....			<b>\$25,483,736 57</b>
<b>INVESTMENT ACCOUNT.</b>			
Amount of Investments on hand April 30, 1891.....		\$20,272,600 00	
Purchased in 1891-92:			
City of Boston Loans.....	\$214,000 00		
" Charlestown Loans.....	2,000 00		
" Boston Temporary Loans in anticipa-			
tion of taxes.....	2,000,000 00		
Other Cities in Massachusetts Loans.....	1,840,000 00		
Boston & Maine Railroad Loans.....	500,000 00		
Old Colony Railroad Co. Loans.....	200,000 00		
		4,756,000 00	
<b>Matured in 1891-92:</b>		<b>\$25,028,600 00</b>	
City of Boston Loans.....	\$705,000 00		
" Charlestown Loans.....	34,000 00		
" Boston Temporary Loans.....	2,000,000 00		
Other Cities in Massachusetts Loans.....	2,200,000 00		
County of Suffolk Loan.....	17,000 00		
Boston and Maine Railroad Loans.....	800,000 00		
Fitchburg Railroad Co. Loan.....	75,000 00		
Old Colony Railroad Co. Loan.....	200,000 00		
Mystic Water Loans.....	18,000 00		
Cochituate Water Loans.....	60,000 00		
		6,109,000 00	
<b>Amount of Investments January 31, 1892</b> .....		<b>\$18,919,600 00</b>	

## DEBT LIABILITIES OF THE SINKING-FUNDS, JANUARY 31, 1892.

Classification of Debt.	Liabilities April 30, 1891.	Debt Issued in 1891-92.	Debt Paid in 1891-92.	Liabilities Jan. 31, 1892.
Old.....	\$428,000 00		\$337,000 00	\$91,000 00
Consolidated Street Improvement.....	2,498,602 35		86,982 71	2,411,619 64
Burnt District.....	5,702,103 73			5,702,103 73
Twenty Year.....	11,469,000 00	\$584,000 00	705,000 00	11,348,000 00
Ten Year.....	7,691,500 00			7,691,500 00
Public Park.....	1,935,000 00			1,935,000 00
Public Park Construction.....	2,500,000 00	700,000 00		3,200,000 00
Special Loans.....	3,450,000 00			3,450,000 00
Cochituate Water.....	16,267,773 98	216,000 00	60,000 00	16,423,773 98
Mystic Water.....	688,000 00		206,000 00	482,000 00
Suffolk County Court-House.....	2,400,000 00			2,400,000 00
Suffolk County, General.....	64,000 00			64,000 00
Laying Out and Construction of Highways.....		50,000 00		50,000 00
	<b>\$55,098,980 06</b>	<b>\$1,550,000 00</b>	<b>\$1,394,982 71</b>	<b>\$55,248,997 35</b>

## STATEMENT

OF THE CASH RECEIPTS AND DISBURSEMENTS OF ALFRED T. TURNER, TREASURER OF  
THE BOARD OF COMMISSIONERS OF SINKING-FUNDS OF CITY OF BOSTON, FROM JULY  
16, 1881, TO JAN. 31, 1892, INCLUSIVE.

Amount of Cash received from C. H. Dennie, Treasurer, July 16, 1881.....		\$1,365,928 20
Cash receipts:		
July 16, 1881, to April 30, 1882 .....	\$3,696,475 98	
May 1, 1882, " " " 1883 .....	4,955,195 34	
" 1, 1883, " " " 1884 .....	4,997,400 18	
" 1, 1884, " " " 1885 .....	4,291,180 67	
" 1, 1885, " " " 1886 .....	3,418,975 23	
" 1, 1886, " " " 1887 .....	4,663,236 82	
" 1, 1887, " " " 1888 .....	4,229,152 62	
" 1, 1888, " " " 1889 .....	6,388,433 83	
" 1, 1889, " " " 1890 .....	4,859,804 01	
" 1, 1890, " " " 1891 .....	6,040,412 79	
" 1, 1891, " Jan. 31, 1892 .....	8,854,593 85	
		56,394,860 72
Cash Disbursements:		\$57,760,788 92
July 16, 1881, to April 30, 1882 .....	\$2,619,174 81	
May 1, 1882, " " " 1883 .....	5,988,629 28	
" 1, 1883, " " " 1884 .....	4,774,324 39	
" 1, 1884, " " " 1885 .....	2,864,667 64	
" 1, 1885, " " " 1886 .....	4,527,025 97	
" 1, 1886, " " " 1887 .....	5,398,858 89	
" 1, 1887, " " " 1888 .....	2,734,208 60	
" 1, 1888, " " " 1889 .....	4,599,641 89	
" 1, 1889, " " " 1890 .....	5,727,351 99	
" 1, 1890, " " " 1891 .....	5,805,116 34	
" 1, 1891, " Jan. 31, 1892 .....	6,157,852 45	
		51,196,662 36
Cash Balance Jan. 31, 1892.....		\$6,564,136 57

Respectfully submitted,

ALFRED T. TURNER,  
*Treasurer.*

CITY OF BOSTON,  
BOARD OF COMMISSIONERS OF SINKING-FUNDS,  
CITY HALL, March 24, 1892.

The Committee on Accounts of this Board, appointed to  
examine the Investments of the Sinking-Funds, having com-  
pleted its examination, report that they find the amount  
stated by the Treasurer, viz., \$18,919,600, to be correct.

JOSEPH H. GRAY,  
SAMUEL JOHNSON,  
NATHANIEL J. RUST.

**ANNUAL REPORT**  
**OF THE**  
**STREET DEPARTMENT,**  
**FOR THE YEAR 1891.**

**[DOCUMENT 36 — 1892.]**



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[DOCUMENT 36 — 1892.]



ANNUAL REPORT  
OF THE  
STREET DEPARTMENT,  
FOR THE YEAR 1891.

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STREET DEPARTMENT, CITY HALL,  
BOSTON, Feb. 1, 1892.

HON. NATHAN MATTHEWS, JR.,  
*Mayor of the City of Boston:*

SIR: In compliance with the Revised Ordinances, the first annual report of the operations and expenses of the Street Department for the year 1891 is herewith respectfully submitted.

In accordance with a recommendation made by you in your inaugural address, Jan. 5, 1891, in regard to the consolidation of certain of the departments having to do with work directly connected with the streets of the city, an ordinance to amend Chapter 18 of the Revised Ordinances of 1890 was passed by the Board of Aldermen on March 2, 1891. The ordinance provided that "the Street Department shall be under the charge of the Superintendent of Streets, who shall construct all highways and sewers; shall have charge of and keep the highways, the pumping-station, and reservoirs of the improved sewerage system, all sewers under

the control of the city, and the catch-basins in the streets connected with the sewers, clean and in good condition and repair; shall remove all ashes accumulated from the burning of materials for heating buildings and for domestic purposes, all house dirt, house offal, and all noxious and refuse substances from the yards and areas, where so placed as to be easily removed; shall have the care of the city teams and city stables, and of all property acquired for carrying out said purposes, and shall keep the same in good condition and repair; shall purchase all fuel and other supplies required for said purposes, and shall within the appropriation for officers and subordinates appoint all necessary deputy superintendents, chiefs of divisions, and other subordinates, said deputies and chiefs to be approved by the Mayor; shall have the care and management of all bridges which are used as highways and are in whole or in part under the charge of the city, and of so much of Harvard bridge and of Prison-point bridge as are under the charge of the Board of Aldermen; shall be the commissioner to act with another commissioner for the city of Cambridge, and shall have and exercise all the powers in relation to West Boston and Craigie's bridges conferred by Chapter 302 of the Acts of the year 1870; shall make all repairs affecting the strength of bridges, and keep the rails and planks in good order, and all dirt, snow, and ice removed from the sidewalk, and keep all bridges, draws, and wharves thereof clean and in good condition and repair, and shall appoint all draw-tenders; shall place and maintain all street signs and number all buildings; shall issue all permits to open, occupy, or obstruct streets for various purposes; permits to licensed drain-layers to enter particular drains into the public sewers; permits to open, occupy, and use portions of the street for coal-holes and vaults; permits to raise and lower goods and safes; permits to building-movers; permits to open and occupy portions of the street for the purpose of laying wires, railway tracks, pipes or conduits; and permits to place and maintain poles for the support of wires."

In general, the Superintendent of Streets is charged with seeing that all statutes, ordinances, and regulations relating to the care and use of streets, bridges, and sewers are fully observed, and with carrying out all lawful orders of the Board of Aldermen relating to streets, bridges, and sewers. The ordinance relating to the duties of the Superintendent of Streets was still further amended on Dec. 15, 1891, by a clause obliging him to keep the streets properly watered.

The before-mentioned duties were, previous to the passage of this ordinance, performed by the Superintendent of

Streets, the Superintendent of Sewers, the Superintendent of Sanitary Police, the Superintendent of Bridges, and the Commissioner of Cambridge Bridges, all of which offices were abolished in the ordinance, and the departments under their control consolidated into the Street Department.

In order to systematize the work of the Street Department, the following divisions have been made :

- Central Office.
- Paving Division.
- Sewer Division.
- Sanitary Division.
- Street-cleaning Division.
- Bridge Division.
- Cambridge Bridges Division.

Each of these divisions, with the exception of the Central Office and the Cambridge Bridges Divisions, is in charge of a deputy superintendent.

#### CENTRAL OFFICE DIVISION.

The Central Office Division takes charge of all work of a general nature, such as correspondence, purchasing of supplies, attending to complaints, execution of contracts, keeping the records returned from the various divisions, and all financial accounts, monthly returns of force accounts, monthly statements of accumulated expenses for reports to the Mayor, and all legal transactions affecting the department, giving due notice of the same to parties affected thereby ; and, in general, acts as headquarters from which the operations of the various divisions can be directed.

To this office the various deputies in charge of the divisions report daily, so that the work in all divisions shall move along harmoniously, and without duplication of labor and expense.

The supplies of the department are all obtained through a purchasing agent, instead of through the head clerks of the different divisions, as was formerly the case before the departments were consolidated.

Uniformity in quality of materials and the lowest market rates are thus obtained.

Blank forms are furnished to the foremen in the different yards, on which are entered by them memoranda of materials needed and the object thereof, and this form is returned to the chief clerk of the division, who enters the same in a warrant book, the stubs of which are numbered consecutively.

This warrant, approved by the deputy superintendent of the division, is then sent direct to the purchasing agent, who issues in return the requisition on the parties with whom he holds contracts for furnishing materials.

The numbers of warrants and requisitions are made to correspond, so that upon the return of the bills, certified as to quantity and quality (delivered by the foreman receiving the same), they are easily identified and vouched for by the purchasing agent before being entered upon the schedule for payment.

This complete system of warrants and requisitions for supplies allows the purchasing agent to have a check on their price and delivery, and also on the purchase of an excessive amount of stock at a given time.

Specifications have been prepared for the purchasing of all large supplies which are bought by contract after public advertisement.

During the year the Corporation Counsel has rendered 77 legal opinions, of which number 37 relate to matters pertaining to the Paving Division, 32 to the Sewer Division, 3 to the Bridge Division, and 5 to miscellaneous matters.

#### FINANCE. •

Books are kept at the Central Office which show the objects and amounts of the various appropriations and balances from month to month. The following detailed statement shows the various appropriations and amount expended for maintenance for four months ending May 1, 1891, and for the nine months ending Jan. 31, 1892.

This division of the financial accounts is made necessary by the change in the financial year.

**FINANCIAL STATEMENT**  
**OF THE**  
**STREET DEPARTMENT APPROPRIATION**  
**FROM**  
**JANUARY 1, 1891, TO JANUARY 31, 1892,**  
**INCLUSIVE.**



APPROPRIATIONS.	Balance on hand Jan. 1, 1892.	Revenue and Loans.	Total Credits.	Expenditures for the four months ending April 30, 1891.	Balance.
Street Department, now Paving Division .....	\$45,211 81 <sup>1</sup>	\$179,124 27	\$224,336 08	\$224,336 08	
Sewer Department, now Sewer Division.....	34,748 24	<sup>2</sup> 40,892 05	75,640 29	75,397 41	\$242 88
Sanitary Police Department, now Sanitary Division.....	151,562 44	<sup>3</sup> 27,212 16	178,774 60	178,774 60	
Bridge Department, now Bridge Division.....	23,572 99	<sup>4</sup> 1,201 10	24,774 09	24,774 09	
Cambridge Bridge Department, now Cambridge Bridges Di- vision .....	<sup>5</sup> 1,543 48	.....	1,543 48	1,543 48	
Total.....	\$256,638 96	\$248,429 58	\$505,068 54	\$504,825 66	\$242 88

<sup>1</sup> Transferred from Causeway street ..... \$3,000 00  
 Loan ..... 183,000 00  
 Transferred from Cambridge Bridges ..... 5,494 30

Transferred to Commonwealth avenue ..... \$191,494 30  
 " " Sewer Division..... 844 93  
 " " Sanitary " ..... 8,411 84  
 " " Bridge " ..... 2,712 16  
 ..... 1,201 10  
 ..... 12,370 03  
 ..... \$179,124 27

<sup>2</sup> Loan .... \$32,000 00  
 Revenue ..... 480 21  
 Transferred from Street De-  
 partment ..... 8,411 84  
 ..... \$40,892 05  
<sup>3</sup> Loan ..... \$24,500 00  
 Transferred from Street De-  
 partment..... 2,712 16  
 ..... \$27,212 16  
<sup>4</sup> Transferred from Street De-  
 partment ..... \$1,201 10  
<sup>5</sup> Original balance..... \$7,037 78  
 Transferred to Street Depart-  
 ment ..... 5,494 30  
 ..... \$1,543 48

## STREET DEPARTMENT.

APPROPRIATIONS.		Balance on hand May 1, 1891.	Appropriation during the Year.	Revenue.	Total Credits.	Expenditures for nine months ending Jan. 31, 1892.	Balance Jan. 31, 1892.
<b>STREET DEPARTMENT:</b>							
Central Office.....			\$16,050 00		\$16,050 00	\$16,050 00	\$483 71
Paving Division.....			\$753,347 65		753,347 65	752,863 94	2,296 00
Sewer Division.....		\$242 88	\$370,195 32	\$2,683 08	373,121 28	370,825 28	32 36
Sanitary Division.....			\$330,600 00		330,600 00	330,567 64	14,835 08
Street-cleaning Division.....			\$230,000 00		230,000 00	215,464 92	1,163 46
Bridge Division.....			\$99,400 00		99,400 00	98,238 54	
Cambridge Bridges Division.....			7 10,322 94		10,322 94	10,322 94	
Street Police.....			\$464 41		464 41	464 41	
<b>Total.....</b>		\$242 88	\$1,810,380 32	\$2,683 08	\$1,813,306 28	\$1,794,785 67	\$18,510 61
<b>1 Appropriation for 1891-92.....</b>							
Transferred from Street Police Division,	\$15,000 00			\$350,000 00			\$100,000 00
Transferred from Street Police Division,	1,050 00			136 45			600 00
Transferred from Street Police Division,	\$16,050 00			68 87			\$99,400 00
<b>2 Appropriation for 1891-92.....</b>							
Transferred from Reserved Fund for Street Watering.....	\$700,000 00			\$370,195 32			\$12,000 00
Transferred from Cambridge Bridges Division.....	60,000 00			\$330,000 00			1,677 06
Transferred from Street Police Division,	1,677 06			600 00			\$10,322 94
Transferred from Street Police Division,	3,485 59			\$330,600 00			\$5,000 00
Transferred to Humboldt ave., grade damages.....	\$755,162 65			\$250,000 00			\$1,050 00
Transferred to Humboldt ave., grade damages.....	1,815 00			20,000 00			3,485 59
<b>Total.....</b>	\$753,347 65			\$230,000 00			\$464 41
<b>3 Appropriation for 1891-92.....</b>							
Transferred from Street Police Division,				\$350,000 00			\$100,000 00
Transferred from Street Police Division,				136 45			600 00
Transferred from Street Police Division,				68 87			\$99,400 00
<b>4 Appropriation for 1891-92.....</b>							
Transferred from Bridge Division.....				\$370,195 32			\$12,000 00
Transferred from Bridge Division.....				\$330,000 00			1,677 06
Transferred from Bridge Division.....				600 00			\$10,322 94
<b>5 Appropriation for 1891-92.....</b>							
Transferred to Sewer Division.....				\$330,600 00			\$5,000 00
Transferred to Sewer Division.....				\$250,000 00			\$1,050 00
Transferred to Sewer Division.....				20,000 00			3,485 59
<b>Total.....</b>				\$230,000 00			\$464 41

## Paving Division Specials.

OBJECT OF APPROPRIATION.	Appropriations.	Expended Jan. 1, 1891. to Jan. 31, 1892.	Balance on hand Jan. 31, 1892.
A st., Broadway to First st.....	\$12,000 00	\$12,000 00	
Albany st.....	21,107 49	21,107 49	
Aldie st.....	1,000 00	1,000 00	
Allandale st... ..	6,000 00	4,722 41	\$1,270 59
Ashfield st.....	1,000 00	1,000 00	
Ashmont st., Dorchester ave. to Washington st..	5,400 00	5,400 00	
Atlantic ave.....	3,492 76	3,492 76	
Austin st... ..	8,700 00	8,700 00	
Atlantic st., Thomas Park to Fourth st.....	1,543 02	1,543 02	
Baker st.....	2,500 00	2,500 00	
Baldwin st., Ward 4.....	3,307 26		3,307 26
Ballard st.....	1,000 00	1,000 00	
Batterymarch st.....	3,200 00	3,200 00	
Beacon st., west from Charles st.....	35,350 00	35,350 00	
Beacon st., West Chester Park to Arlington st...	6,000 00	4,825 38	1,174 62
Bedford st., Chauncy to Columbia st.....	4,100 00	4,100 00	
Board alley.....	469 50	469 50	
Boat-landing, Commercial wharf.....	1,000 00		1,000 00
Bolton street, Second to D st.....	1,767 00		1,767 00
Boylston st., Church to Arlington st.....	8,000 00	64 50	7,935 50
Bristol st... ..	2,579 71	49 00	2,530 71
Brookline st., Shawmut ave. to Tremont st.....	531 10	531 10	
Bunker Hill st., Elm to Sackville st.....	4,600 00	4,000 00	
Bushnell st.....	2,917 00	2,917 00	
Buttonwood st.....	3,500 00	2,013 30	1,486 70
Cabot st... ..	16,000 00	16,000 00	
Caldwell st.....	1,568 52	1,568 52	
Cambridge st., Wards 9 and 10.....	23,775 29	23,775 29	
Camden st., Tremont st. to O. C. R.R.....	7,500 00	7,500 00	
Canton st., Shawmut ave. to Tremont st. ....	1,000 00	1,000 00	
Centre st., Pyncheon to New Heath st. ....	3,000 00	3,000 00	
Centre st., Ward 23 .....	1,261 14		1,261 14
Chambers st., Charlestown.....	634 35	634 35	
Charles st. ....	28,224 71	16,678 66	11,646 05
Chestnut ave., Ward 9, paving .....	650 00		650 00
Carried forward .....	\$224,078 85	\$190,049 28	\$34,029 57

Paving Division Specials. — *Continued.*

OBJECT OF APPROPRIATION.	Appropriations.	Expended Jan. 1, 1891, to Jan. 31, 1892.	Balance on hand Jan. 31, 1892.
<i>Brought forward</i> .....	\$224,078 85	\$190,049 28	\$34,029 57
Childs st. ....	2,500 00	.....	2,500 00
Cleveland pl. ....	1,000 00	1,000 00	
Cliff st. ....	2,169 72	2,169 72	
Columbus ave. ....	39,000 00	39,000 00	
Commonwealth ave., West Chester park to Arlington st. ....	2,000 00	603 90	1,396 10
Concord sq. ....	72 40	72 40	
Cook st. ....	700 00	700 00	
Cornell st. ....	4,300 00	4,300 00	
Cornwall st., laying out and constructing.....	6,405 86	5,405 86	1,000 00
Call st., laying out and constructing.....	3,096 45	3,096 45	
D st., First to Third st. ....	5,000 00	.....	5,000 00
Dartmouth st., Tremont st. to Columbus ave. ....	568 10	568 10	
Dearborn st., Eustis to Dudley st. ....	2,066 91	.....	2,066 91
Dorchester st., Eighth st. to Dorchester ave.....	22,000 00	21,613 91	386 09
Dorset st., Dorchester ave. to Boston st.....	5,000 00	5,000 00	
Dover st., Harrison ave. to Albany st.....	6,715 00	6,715 00	
Dudley st., to Norfolk House ....	5,000 00	5,000 00	
Dudley st., Washington to Vine st.....	33,899 36	33,177 75	721 61
Dudley st., Blue Hill ave. to Shirley st. ....	7,600 64	.....	7,600 64
Dupont st. ....	524 00	.....	524 00
Eagle sq. ....	1,000 00	1,000 00	
East Fifth st., L to N st. ...	3,244 91	.....	3,244 91
East First st., H to K st. ....	1,000 00	1,000 00	
E st., Third to Bolton st. and Third st., 160 ft. ....	3,000 00	3,000 00	
Ellery st., Ward 15 ....	1,780 39	.....	1,780 39
East Concord st., Harrison ave. to Albany st.....	4,500 00	4,500 00	
East Newton st., Harrison ave. to Albany st.....	3,554 36	3,554 36	
Edgeworth st. ....	400 00	400 00	
Ellwood st. ....	1,251 06	1,251 06	
Emerson st., H to I st. ....	5,000 00	5,000 00	
Emerald st.....	1,574 98	1,574 98	
Exeter st.....	316 50	316 50	
First st., West ....	5,200 00	5,200 00	
First st., Ward 14.....	4,710 07	.....	4,710 07
<i>Carried forward</i> .....	\$410,229 56	\$345,793 27	\$64,436 29

Paving Division Specials. — *Continued.*

OBJECT OF APPROPRIATION.	Appropriations.	Expended Jan. 1, 1891, to Jan. 31, 1892.	Balance on hand Jan. 31, 1892.
<i>Brought forward</i> .....	\$410,229 56	\$345,793 27	\$64,436 29
First st., E to F st.....	4,000 00	4,000 00	
First st., D to F st.....	2,289 93	2,289 93	
First st., N. Y. & N. E. R.R. to F st. ....	25,000 00	25,000 00	
Fulcon st.....	5,667 00	3,380 40	2,286 60
Fourth st., G to H st. ....	1,104 35	1,104 35	
Forbes st.....	2,020 75	2,020 75	
Fulda st.....	830 28	324 75	505 53
Fulton st., Richmond to Lewis st. ....	7,230 42	7,230 42	
Genesee st. ....	3,500 00	3,500 00	
Geneva ave.....	13,000 00	6,249 79	6,750 21
Gold-mith st.....	1,000 00	1,000 00	
Granite ave. ....	10,000 00	10,000 00	
Green st., Charlestown.....	460 46	460 46	
Gustin st.....	1,700 00	1,700 00	
Hampshire st.....	1,000 00	1,000 00	
Harrison ave., Canton to Sharon st. ....	4,000 00	4,000 00	
Harrison ave., E. Concord to E. Chester park ...	1,500 00	1,500 00	
Harrison ave., E. Lenox to Northampton st.....	3,000 00	3,000 00	
Harrison ave., Kneeland to Bennett st. ....	3,900 00		3,900 00
Harvard st., Washington to Albany st. ....	10,000 00	77 78	9,922 22
Harvest st., Boston st. to Dorchester ave.....	4,000 00	4,000 00	
Haskins st. ....	2,809 79	2,809 79	
Haviland st. ....	541 98		541 98
Heath st., widening, etc. ....	17,167 00	2,768 33	14,398 67
Henley st. ....	3,847 52	3,847 52	
High st., Winthrop to Walker st. ....	2,125 13	2,125 13	
Hill st.....	4,138 07	4,138 07	
Hobart st.....	2,000 00	2,000 00	
Hollis st. ....	3,087 02	3,087 02	
Howland st.....	4,000 00	4,000 00	
Hudson st.....	21,000 00	20,113 68	886 32
Humboldt ave., grading.....	16,025 27	16,025 27	
Hunneman st.....	14,000 00	82 80	13,917 20
Horace and Homer sts. ....	1,169 26		1,169 26
Humboldt ave., grade damages .....	1,815 00		1,815 00
<i>Carried forward</i> .....	\$609,158 79	\$458,629 51	\$150,529 28

Paving Division Specials. — *Continued.*

OBJECT OF APPROPRIATION.	Appropriations.	Expended Jan. 1, 1891, to Jan. 31, 1892.	Balance on hand Jan. 31, 1892.
<i>Carried forward</i> .....	\$609,158 79	\$488,829 51	\$120,529 28
Island st. ....	25 00	25 00	
Jeffries and Marginal sts.....	5,000 00	5,000 00	
K st., Broadway to First st.....	2,000 00	.....	2,000 00
K st., Fourth to Eighth sts.....	678 34	678 34	
Kingston st., Summer to Essex sts. ....	7,715 00	7,715 00	
Lake st. ....	12,000 00	12,000 00	
L st. ....	30,440 00	21,098 97	9,341 03
Lenox st.....	5,474 41	5,474 41	
Lincoln st.....	2,300 00	2,300 00	
Longwood ave., Parker to Huntington ave. ....	23,000 00	22,592 12	407 88
Lucas st.....	308 22	308 22	
Lynde st. ....	2,000 00	1,903 79	396 21
Magazine st., E. Chester park to Norfolk ave....	2,500 00	925 80	1,574 20
Magnolia st.....	4,000 00	4,000 00	
Malden st.....	6,000 00	6,000 00	
Matthews st.....	4,560 25	4,560 25	
Maynard st. ....	2,000 00	2,000 00	
Medford st., Lexington to Chelsea st. ....	28,200 00	21,505 36	6,694 64
Mercer st., Dorchester to Eighth st.....	2,000 00	1,054 98	945 02
Minot st. ....	10,000 00	8,440 37	1,559 63
Monument court.....	497 48	497 48	
Monument st.....	1,866 87	1,866 87	
Moon st.....	3,519 34	3,519 34	
Moreland st., from Fairland st.....	2,000 00	2,000 00	
Mt. Vernon st., Ward 25 .....	2,125 00	2,125 00	
Murdock st.....	2,000 00	1,006 06	993 94
National st. ....	1,500 00	1,500 00	
Neponset ave.....	12,000 00	12,000 00	
Newman st., Mercer to Dorchester st. ....	1,198 26	1,198 26	
Ninth st., Old Harbor to N st.....	12,654 37	6,117 66	6,536 71
Oak st.....	1,000 00	1,000 00	
Ocean st.....	10,100 00	10,100 00	
Onelda st.....	3,300 00	3,300 00	
Oswego st.....	3,668 67	3,668 67	
Park st.....	2,115 43	2,115 43	
<i>Carried forward</i> .....	\$818,906 03	\$667,927 49	\$150,978 54

**Paving Division Specials. — Continued.**

OBJECT OF APPROPRIATION.	Appropriations.	Expended Jan. 1, 1891, to Jan. 31, 1892.	Balance on hand Jan. 31, 1892.
<i>Brought forward</i> .....	\$818,906 03	\$667,927 49	\$150,978 54
Parker st.....	35,000 00	35,000 00	
Parker st., Huntington ave. to Westland ave.....	1,000 00	420 00	580 00
Parkman st., Ward 9.....	453 80	453 80	
Paul st.....	844 38	844 38	
Pemberton sq. ....	1,584 57	1,584 57	
Preble st., Dorchester ave. to Vinton st.....	5,800 00	5,800 00	
Prentiss st.....	4,000 00	4,000 00	
Prospect ave. ....	500 00	500 00	
Q st.....	399 85	399 85	
Randolph st.....	6,000 00		6,000 00
Resurfacing streets, Wards 17 and 18 .....	5,777 31	5,777 31	
Richmond st. ....	1,400 00	1,400 00	
Rochester st.....	4,360 64	4,360 64	
Rogers st., Dorchester st. to Preble st. ....	1,000 00	1,000 00	
Rutherford ave., macadamizing .....	100 00	100 00	
Rutherford ave., paving.....	13,638 23	7,841 60	5,696 73
Rutland square.....	114 10	114 10	
Salem st., Charlestown....	1,000 00	1,000 00	
Savin Hill ave.....	3,500 00	3,500 00	
Scotia, Cambria, and Bothnia sts. ....	10,000 00	10,000 00	
Second st., K to M st.....	1,422 21	1,422 21	
Second st., E to Dorchester st. ....	20,000 00	20,000 00	
Second st., Granite st., easterly .....	15,000 00	15,000 00	
Second st., grading, etc.....	1,034 36	1,034 36	
Seneca st.....	3,241 33	3,241 33	
Seventh st., D to B st. ....	9,000 00	9,000 00	
Sheds, Medford-st. Yard ..	2,000 00		2,000 00
Shirley st. ....	6,750 00	4,042 66	2,707 34
Short st., Charlestown .....	700 00	700 00	
Short st., West Roxbury.....	3,500 00	96 60	3,403 40
Silver st., A to D st. ....	1,500 00	1,090 66	409 34
Sixth st., B to C st.....	3,200 00	3,200 00	
Sixth st., H to I st.....	1,621 54	1,621 54	
Soley st. ....	810 35	810 35	
Stillman st. ....	1,500 00		1,500 00
<i>Carried forward</i> .....	\$989,203 78	\$815,230 13	\$173,973 65

Paving Division Specials. — *Continued.*

OBJECT OF APPROPRIATIONS.	Appropriations.	Expended Jan. 1, 1891, to Jan. 31, 1892.	Balance on hand Jan. 1, 1892.
<i>Brought forward</i> .....	\$989,203 78	\$815,230 13	\$173,973 65
Story st. ....	2,645 08	1,946 78	698 30
Stoughton st., Harrison ave. to Albany st. ....	3,000 00	3,000 00	
Sun-court st. ....	1,388 32	1,388 32	
Sycamore and Ridge sts. ....	3,700 00	3,700 00	
Symmes st. ....	1,000 00	1,000 00	
Stanhope st. ....	1,683 50		1,683 50
Smith st. ....	639 60	639 60	
Terrace pl. ....	850 00	850 00	
Terrace st. ....	25,695 54	25,218 34	477 20
Texas st. ....	2,000 00	2,000 00	
Third st. ....	2,000 00	2,000 00	
Tremont st., Roxbury crossing to Parker st. ....	10 50	10 50	
Tremont st., Roxbury crossing to Huntington ave..	2,304 46		2,304 46
Tremont st., Scollay sq. to Boylston st. ....	52,000 00	52,000 00	
Troy st. ....	8,100 00	8,100 00	
Village st. ....	2,200 00	2,200 00	
Vinton st. ....	1,000 00		1,000 00
Waltham st. ....	500 00	500 00	
Ward st. ....	675 72	675 72	
Wareham st. ....	13,024 62	13,024 62	
Warren ave. ....	254 40	254 40	
Warren st., granite blocks. ....	20,000 00	17,081 75	2,918 25
Warren st. and Blue Hill ave. ....	5,000 00		5,000 00
Warrenton st. ....	6,871 64	6,821 08	250 56
Washburn st. ....	3,043 89	3,043 89	
Washington st., Charlestown. ....	2,000 00	2,000 00	
Washington st., Hawes ave. to N. Y. & N. E. R.R.	500 00	500 00	
Washington st., etc., Ward 23. ....	11,953 19	11,953 19	
Water st., Charlestown ....	540 70	540 70	
Watson st. ....	1,498 65	1,498 65	
Waumbeck st. ....	2,000 00	2,000 00	
Way st. ....	8,179 80		8,179 80
Well st. ....	1,800 00	1,800 00	
Wendell st. ....	2,520 06	2,520 06	
West Chester park ....	15,647 63		15,647 63
<i>Carried forward</i> .....	\$1,195,354 02	\$983,918 97	\$211,435 05



**Paving Division Specials. — Concluded.**

OBJECT OF APPROPRIATION.	Appropriations.	Expended Jan. 1, 1891, to Jan. 31, 1892.	Balance on hand Jan. 1, 1892.
<i>Brought forward</i> .....	\$1,195,354 02	\$983,918 97	\$211,435 05
West Chester park and square .....	2,568 02	2,568 02	
West Dedham st. ....	4,500 00	4,500 00	
West Newton st., Tremont st. to Columbus ave. . .	12,000 00	12,000 00	
West Newton st., Tremont st. to Shawmut ave. . .	6,000 00	6,000 00	
West Second st. ....	135 49	135 49	
Wharf st. ....	1,861 03	1,861 03	
<b>Total</b> .....	<b>\$1,219,850 54</b>	<b>\$1,008,415 49</b>	<b>\$211,435 05</b>

## Sewer Division Specials.

OBJECT OF APPROPRIATION.	Appropriations.	Expended Jan. 1, 1891, to Jan. 31, 1892.	Balance on hand Jan. 31, 1892.
Arlington st.....	\$2,107 69	\$1,970 06	\$137 63
Border st .....	1,108 91	1,108 91	
Burnett st.....	715 55	715 55	
Beacon st. and Commonwealth ave.....	18,800 00	10,387 82	8,412 18
Brighton.....	10,400 00	3,673 30	6,726 70
Byron st.....	934 19	934 19	
" " outlet.....	1,211 83	1,208 19	3 64
Brookline av., improved sewerage connection ...	4,665 50	121 55	4,543 95
Cambridge st.....	1,500 00	1,500 00	
Catch-basins, Huntington ave.....	472 95	454 34	18 61
" " Wards 19 and 22.....	190 21	190 21	
" " Stanhope st.....	227 05	.....	227 05
Charlestown sewers, repairing .....	11,000 00	8,968 71	2,031 29
Cleveland pl. ....	157 00	157 00	.....
Crawford st., Humboldt ave. to Walnut ave. ....	5,000 00	2,030 80	2,969 20
Culverts, Ward 24.....	5,000 00	5,000 00	
Commonwealth ave. ....	1,000 00	1,000 00	
Cottage st., outlet extension .....	160 50	160 50	
D st., outlet .....	10,000 00	3,976 17	6,023 83
Dike, Winthrop Junction.....	2,350 00	.....	2,350 00
Dunstable st. ....	373 55	373 55	
Dustin st.....	6,000 00	6,000 00	
Dorchester brook, rebuilding.....	20,366 02	20,366 02	
East Boston.....	5,200 00	2,925 70	2,274 30
Eleventh aldermanic district .....	1,046 97	.....	1,046 97
Falcon st.....	1,000 00	1,000 00	
Florence st.....	1,306 60	1,306 60	
Harcourt st.....	432 00	432 00	
Hillside st.....	579 19	579 19	
Harvard and Kilton sts.....	12,000 00	12,000 00	
Homer st.....	1,250 00	1,250 00	
Lawrence ave., Quincy and Magnolia sts.....	6,000 00	4,143 12	1,856 88
Milton st.....	865 31	865 31	
New st.....	450 00	15 29	434 71
Onk st.....	3,500 00	3,500 00	
Orient Heights.....	29,850 00	29,585 04	64 96
<i>Carried forward.....</i>	<i>\$167,021 02</i>	<i>\$127,909 12</i>	<i>\$39,111 90</i>

Sewer Division Specials. — *Concluded.*

OBJECT OF APPROPRIATION.	Appropriations.	Expended Jan. 1, 1891, to Jan. 31, 1892.	Balance on hand Jan. 31, 1892.
<i>Brought forward</i> .....	\$167,021 02	\$127,909 12	\$39,111 90
Peter Parley road .....	395 19	370 92	24 27
Parker Hill st. ....	1,024 00	1,024 00	
Porter st. ....	12,000 00	12,000 00	
Rockwell and Armandine sts. ....	15,000 00	8,800 93	6,199 07
Russell st. ....	324 13	324 13	
Roxbury .....	10,220 81	361 38	9,859 43
Roslindale and West Roxbury .....	55,321 26	47,184 96	8,136 30
Savin Hill district .....	21,962 26	21,678 70	283 56
South Boston .....	4,000 00	231 11	3,768 89
Stable and sheds, Brighton .....	4,500 00		4,500 00
Summer and Orleans sts.....	13,000 00	13,000 00	
Stony-brook improvement.....	23,082 44	22,997 30	85 14
Tyler st. ....	7,000 00	7,000 00	
Walkhill st.....	1,500 00	1,500 00	
Welles ave.....	750 00	750 00	
Washington st., etc., Ward 23.....	2,000 00	2,000 00	
Westville, Freeman, and Charles sts.....	8,000 00	4,008 36	3,991 64
Whitmore st.....	700 00		700 00
Total .....	\$347,801 11	\$271,135 91	\$76,665 20

## Bridge Division Specials.

OBJECT OF APPROPRIATION.	Appropriations.	Expended Jan. 1, 1891, to Jan. 31, 1892.	Balance on hand Jan. 31, 1892.
Berkeley-st. bridge, rebuilding.. ....	\$18,000 00	\$8,496 18	\$9,503 82
Chelsea bridge, steam apparatus.....	12,000 00	7,768 45	4,231 55
Ferdinand-st. bridge .....	17,427 87	16,552 90	1,874 97
Irvington-st. bridge .....	7,000 00	7,000 00	
Milton bridge, repairs.....	2,500 00	2,500 00	
Savin-Hill ave. bridge, widening.....	5,000 00		5,000 00
Total.....	\$61,927 87	\$41,317 53	\$20,610 34

# RECAPITULATION OF EXPENDITURES

FOR THE

**Thirteen Months ending Jan. 31, 1892.**

OBJECT OF APPROPRIATION.	Current Expenses.		Special Appropriations.	Total.
	For the four months ending April 30, 1891.	For the nine months ending Jan. 31, 1892.		
Street Department:				
Central Office.....		\$16,050 00		\$16,050 00
Paving Division .....	\$224,336 08	752,863 94	\$1,008,415 49	1,985,615 51
Sewer Division.....	75,397 41	370,825 28	271,135 91	717,358 60
Sanitary Division .....	178,774 60	330,567 64		509,342 24
Street-cleaning Division.....		215,464 92		215,464 92
Bridge Division .....	24,774 09	98,236 54	41,317 53	164,328 16
Cambridge Bridges Division ..	1,543 48	10,322 94		11,866 42
Street Police .....		464 41		464 41
Total.....	\$504,825 66	\$1,794,795 67	\$1,320,868 93	\$3,620,490 26

## Statement showing the Income of the Department for the Year ending January 31, 1892.

Paving Division . . . . .	\$33,777 85
Sewer Division . . . . .	<sup>1</sup> 24,197 53
Sanitary Division . . . . .	43,148 51
Bridge Division . . . . .	1,183 40
Street-cleaning Division . . . . .	941 00
	<b>\$103,248 29</b>

<sup>1</sup> In addition to the sum of \$24,197.53 (the amount of the bills for sewer assessments and entrance fees deposited with the City Collector) there remains on the books of the Sewer Division the sum of \$37,415.46, assessed for the construction of sewers, but not yet deposited with the City Collector or collected under the new law, which sum will be drawing interest at 5% until paid.



**LIST OF CONTRACTS**  
**FROM**  
**APRIL 1, 1891, TO FEBRUARY 1, 1892,**  
**MADE BY THE**  
**STREET DEPARTMENT.**

**Paving Blocks.**

AMOUNT.	Size.	Where Delivered.	Contractor.	Date of Bid.	Price per M.
200,000	Large,	Boston wharves ...	S. & R. J. Lombard	April 7, 1891,	{ \$69.00 N. End. 72.00 S. End.
300,000	"	" " "	Cape Ann Granite Co.....	May 8, "	
500,000	Small,	Dorchester or So. Boston wharves,	S. & R. J. Lombard,	May 18, "	\$72 95
300,000	Large,	Charlestown.....	H. Gore & Co....	May 18, "	48 00
200,000	"	Boston wharves ...	Cape Ann Granite Co.....	May 26, "	78 00
100,000	"	" " "	Rockport Granite Co.....	May 21, "	72 95
300,000	"	Boston, Burnham's wharf .....	Cape Ann Granite Co.....	June 27, "	72 95
300,000	"	Boston wharves ...	Rockport Granite Co.....	July 27, "	73 65

**Paving Brick.**

AMOUNT.	Where Delivered.	Contractor.	Date of Bid.	Price per M.
200,000	Boston streets.....	Oliver S. Foster.....	June 15, 1891,	\$11 50
200,000	Boston streets.....	New England Steam Brick Co. ....	July 17, "	12 50

**North-River Flagging.**

WHERE DELIVERED.	Contractor.	Date of Bid.	Price per Sq. Ft.	
City .....	J. J. Cuddihy .....	April 6, 1891 ..	\$0 52½ on wharf.	\$0 57½ on street.

**Edgestone.**

AMOUNT.	Where Delivered.	Contractor.	Date of Bid.	Price per Lin. Ft.
10,000 lin. ft.	Boston wharves .....	Perkins & White ..	July 8, 1891 ...	\$0 73

## Spruce Lumber.

WHERE DELIVERED.	Contractor.	Date of Bid.	Price per M.	Price for Planing.
Paving District 1, South Boston..	A. M. Stetson & Co. ....	April 7, 1891...	\$15 38	\$1 00
" 2, East Boston...	John W. Letherbee.....	" " ...	19 00	1 00
" 3, Charlestown ..	" " ....	" " ...	17 75	1 00
" 4, Brighton.....	G. Fuller & Son .....	" " ...	17 00	2 25
" 5, West Roxbury.	Curtis & Pope.....	" " ...	17 50	1 75
" 6, Dorchester....	Otis Eddy.....	" " ...	16 90	1 50
" 7, Roxbury.....	Curtis & Pope.....	" " ...	16 40	1 75
" 8, 9, and 10, City..	A. M. Stetson & Co.. .	" " ...	15 38	1 00

## Bank Gravel and Sand.

WHERE DELIVERED.	Contractor.	Date of Bid.	Gravel.		Sand.	
			Loads.			
			Double.	Single.	Double.	Single.
Paving District 1, South Boston..	Frank Hannon,	April 6, 1891.	\$1 58	\$0.79	\$1 75	\$0.87½
“ 2, East Boston ...	No bid .....	“ “	.....	.....	.....	.....
“ 3, Charlestown...	P. O'Riordan..	“ “	1 87	.98	1 87	.98
“ 4, Brighton .....	Wm. Scollans .	“ “	1 39	.70	1 96	.98
“ 5, West Roxbury.	Thos. Minton..	“ “	1 40	.70	1 35	.67½
“ 6, Dorchester ....	Owen Nawn...	“ “	1 50	.75	1 80	.90
“ 7, Roxbury .....	“ ...	“ “	1 40	.70	1 60	.80
“ 8, 9, and 10, City..	“ ...	“ “	1 60	.80	1 70	.85

## Beach Gravel.

WHERE DELIVERED.	Contractor.	Date of Bid.	Price per Ton.
City .....	Perkins & White.....	April 6, 1891 .	\$0.71

## Coal.

WHERE DELIVERED.	Contractor.	Date of Bid.	Price per 2,240 Lbs.
Pumping-station, Dorchester.....	H. G. Jordan & Co. ....	April 6, 1891 ..	\$3 71
" " " .....	J. A. Bradford & Co....	Sept. 25, 1891..	3 73



**Engine and Boiler, 6 Inch x 12 Inch.**

WHERE DELIVERED.	Contractor.	Date of Bid.	Price.
Chelsea, North Draw .....	Miller & Shaw .....	.....	\$745 00
" South " .....	" .....	.....	660 00

**Wire Rope, Angle, Shieve, etc.**

WHERE DELIVERED.	Contractor.	Date of Bid.	Price.
Chelsea, South Draw .....	Miller & Shaw .....	.....	\$699 00
" North " .....	" .....	.....	1,192 00

**Furnishing Stone to City Crushers.**

WHERE DELIV'D.	Crusher.	Contractor.	Date of Bid.	Price.
Paving District 5, West Roxbury ..	Washington st...	James Doonan .....	April 22, 1891..	\$0.90 double load.
Paving District 7, Roxbury .....	Dimock st. ....	H. P. Nawn .....	" 22, " ..	.87 per ton.
Paving District 6, Dorchester .....	Bird st. ....	James F. Davern ....	May 7, " ..	.90 "
Paving District 6, Dorchester .....	Codman st. ....	Wm. L. O'Connell ..	" 9, " ..	.68 "

**Excavating and Removing Material from Roadway.**

LOCALITY.	Contractor.	Date of Bid.	Price.	
			Per cu. yds. Earth.	Per sq. yds. Paving removed.
Lenox st.....	John McCarthy....	May 6, 1891	\$0 59	\$0 37½
Harrison ave.....	" " ....	" 23, "	69½	23½
West Dedham st.....	" " ....	June 10, "	95	33½
Wareham st. . . . .	J. J. Sullivan ....	" 20, "	.....	55
Emerson st. ....	M. Donnellan ....	" 4, "	63	26
Sixth st., B st. to C st.....	" " ....	" 23, "	95	19½
Rochester st. ....	John McCarthy....	" 23, "	95½	23½
Magazine st. ....	Wm. T. Davis....	" 30, "	59	
Seventh st. ....	M. Donnellan.....	July 7, "	94½	15½
Cambridge st. ....	S. & R. J. Lombard	" 15, "	.....	49
West Newton st., Shawmut ave. to Tremont st.....	J. J. Sullivan.....	" 18, "	75	29
Wigglesworth and Worthing- ton sts.....	Wm. T. Davis ....	Aug. 1, "	85	
Parker st. ....	Edward A. Janse..	" 8, "	72	25
Malden st.....	J. J. Sullivan.....	" 15, "	.....	55
Warren st. ....	John McCarthy....	Sept. 1, "	59½	23½
Rutherford ave.....	S. & R. J. Lombard	" 14, "	93	19
Prentiss st. ....	Edward A. Janse..	Oct. 23, "	60	15
West Newton st., Tremont st. to Columbus ave.....	John Casey .....	Sept. 8, "	65	27

## Paving and Regulating.

LOCALITY.	Contractor.	Date of Bid.	Prices.						
			A	B	C	D	E	F	G
Troy street .....	James Grant & Co.....	May 25, 1891..	.....	\$1 52	.....	.....	\$0 35	\$1 32	\$1 98
Fulton street.....	Bigelow F. Nay .....	" 25, " ..	.....	1 03	.....	.....	21	63	55
First street.....	Collins & Ham .....	" 25, " ..	.....	1 19	.....	.....	55	91	1 15
A street.....	Collins & Ham .....	" 25, " ..	.....	1 05	.....	.....	55	91	1 15
Longwood avenue.....	J. Doherty & Co.....	" 29, " ..	.....	1 22	.....	.....	15	66	27
Anslin street.....	John Turner & Co.....	" 29, " ..	.....	1 30	.....	.....	35	1 00	1 50
Bedford and Kingston streets .....	H. Gore & Co.....	June 18, " ..	\$2 66	.....	.....	.....	30	91	2 84
Dudley street.....	James Grant & Co.....	" 18, " ..	.....	95	.....	.....	28	79	1 42
Hudson street.....	Barber Asphalt Co.....	" 18, " ..	.....	.....	\$3 50	.....	42	90	1 05
Cabot street.....	" .....	" 18, " ..	.....	.....	3 60	.....	40	85	1 05
Terrace street.....	Albert A. Libby & Co. ....	July 21, " ..	.....	1 05	.....	.....	32½	75	1 30
E street, Third to Bolton street .....	New England Paving Co.....	" 7, " ..	.....	.....	2 75	.....	18	45	60
Bacon street .....	Barber Asphalt Co.....	" 28, " ..	2 00	.....	3 60	.....	.....	.....	1 05
Second and Third streets.....	Collins & Ham .....	" 21, " ..	.....	1 17	.....	.....	33	91	1 35
Dorchester street .....	" .....	Aug. 3, " ..	.....	1 85	.....	.....	24	83	1 35
Second stn et, Dorchester to E street .....	J. Doherty & Co.....	" 3, " ..	.....	1 25	.....	.....	23	78	1 00
Tremont street, Scollay square to Temple place .....	H. Gore & Co.....	" 3, " ..	2 76	1 19	.....	.....	30	90	2 74
Tremont street, Temple place to Boylston street.....	" .....	" 3, " ..	2 76	1 19	.....	.....	30	90	2 74

Paving and Regulating. — *Concluded.*

LOCALITY.	Contractor.	Date of Bid.	Prices.						
			A	B	C	D	E	F	G
			Paving Tar-Joints.	Regular Paving.	Edgestone.	Sidewalks.	Crosswalks.		
Onelda street .....	H. Gore & Co.....	July 27, 1891..		\$1 22			\$0 15	\$0 43	\$0 55
Warrenton street .....	Barber Asphalt Co. ....	Sept. 2, " ..			\$3 25	\$2 00			1 05
Beacon street, Charles to Arlington street.....	J. Doherty & Co.....	Sept. 25, 1891.	\$1 37	\$0 65	\$0 15	\$0 40			
Charles street, easterly side .....	Payson & Co.....	" 8, " ..	1 12		15	28			\$1 05
Charles street, westerly side.....	James Grant & Co.....	" 8, " ..	1 12		15	28			1 05
Henley street (Cobble to Contractor).....	John Turner & Co.....	Sept. 24, " ..		48	15	48			48

## EXPLANATION OF LETTERS.

- A — Price per square yard of paving with granite blocks on concrete foundation.  
 B — Price per square yard of paving with granite blocks on a gravel foundation.  
 C — Price per square yard of paving with asphalt on a concrete foundation.  
 D — Price per square yard of paving with asphalt on existing pavement.  
 E — Price per lineal foot for setting edgestones.  
 F — Price per square yard for laying brick sidewalks.  
 G — Price per square yard for laying crosswalks.

## Repaving Asphalt Streets.

LOCALITY.	Contractor.	Date of Bid.	Prices.		
			A	B	C
Columbus ave.....	Barber Asphalt Co.....	May 28, 1891 .....	\$2 25	\$3 75	\$3 50

## EXPLANATION OF LETTERS.

- A — Price per square yard for stripping old surface and relaying with cushion coats, etc.  
 B — Price per square yard for stripping old surface and concrete foundation and relaying with cushion coats, etc.  
 C — Price per cubic yard for laying Portland cement concrete foundation.

## Paving with Brick.

LOCALITY.	Contractor.	Date of Bid.	Prices.				
			A	B	C	D	E
Seneca st.....	H. Gore & Co.....	June 3, 1891 .....	.....	\$2 75	\$0 15	\$0 43	\$0 55
Deweygo st.....	" .....	July 3, " .....	.....	2 40	15	43	55
Genesee st.....	" .....	Aug. 15, " .....	.....	2 75	15	43	55

## EXPLANATION OF LETTERS.

- A — Price per square yard for paving with brick on concrete foundation.  
 B — Price per square yard for paving with brick on gravel foundation.  
 C — Price per lineal foot for setting edgstones.  
 D — Price per square yard for laying brick sidewalks.  
 E — Price per square yard for laying crosswalks.



**Grading.**

LOCALITY.	Contractor.	Date of Bid.	Price per cubic yard Excavation.	
			Earth.	Rock.
Geneva ave. at Columbia st. ....	A. A. Hall.....	May 16, 1891 .....	\$0 60	\$1 00
" " extension.....	James McGovern.....	Aug. 6, 1891 .....	Cutting.	Filling.
			\$0 35	\$0 70

**Widening.**

LOCALITY.	Contractor.	Date of Bid.	Price per cubic yard Excavation.	
			Earth.	Rock.
Hancock street, Dorchester.....	W. T. Davis.....	Oct. 13, 1891 .....	\$0 85	\$2 50

**Filling.**

LOCALITY.	Contractor.	Date of Bid.	Price per double load, 40 cu. ft.
Shirley street, Roxbury.....	John J. Nawn .....	Nov. 14, 1891 ..	\$0 75

## Teaming Crushed Stone from Crushers.

LOCALITY.	Contractor.	Date of Bid.	Prices per ton of 2,000 lbs.		
			1 mile.	2 miles.	3 miles.
Paving District 4, Chestnut Hill ave., Brighton.....	W. T. Davis.....	April 22, 1891.....	\$0 27	\$0 37	
" " 6, Washington st., W. Roxbury...	James Doonan.....	" 22, " .....	47 1	1 00 1	
" " 6, Codman st., Dorchester.....	James D. O'Connell.....	" 22, " .....	49	60	
" " 6, Bird st., Dorchester .....	William T. Davern.....	May 7, " .....	25	35	\$0 50
" " 7, Tremont st., Roxbury .....	Michael Kelly.....	April 22, " .....	25	35	50
" " 7, Dimock st., Roxbury .....	H. P. Nawn.....	" 22, " .....	30	35	

1 Double load.

## Retaining-Walls.

LOCALITY.	Contractor.	Date of Bid.	Price.
Jrington st. ....	R. D. Shanahan.....	June 15, 1891.....	\$3,397 00
Gold st., South Boston.....	Foote & Flanders.....	July 2, " .....	160 00
Hill st., Charlestown .....	Donovan & Brock.....	Oct. 6, " .....	1,475 00





## Constructing Sewers.

LOCALITY.	Contractor.	Date of Bid.	Prices, in Dollars and Cents.																									
			A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Orient Heights, Sec. 1, Benning- ton and Walley sts.....	Dennis O'Connell, .....	1891, June 3,	3 30	2 97	.....	.....	.....	.....	.....	.....	.....	.....	.....	5 00	4 75	5 00	3 50	.....	27 00	0 80	0 50	12 00	0 15	.....	0 50	0 10	0 10	10
East Boston, Border st.....	A. Fairbanks .....	" 3,	.....	.....	0 55	0 52	.....	.....	.....	.....	.....	.....	35 00	5 00	.....	.....	.....	.....	.....	.....	80	50	12 00	12	.....	.....	.....	10
Dorchester, Brent st.....	A. Fairbanks .....	" 15,	.....	.....	70	70	.....	.....	.....	.....	.....	.....	45 00	5 00	.....	.....	.....	.....	.....	.....	80	50	12 00	12	.....	.....	.....	10
Dorchester, Adams, Beaumont, and Burgoyne sts. ....	Dennis O'Connell, .....	" 24, 2 30	.....	.....	1 50	.....	.....	.....	.....	.....	.....	.....	.....	5 00	5 40	5 75	4 00	.....	.....	.....	80	50	12 00	20	.....	50	10	10
South Boston, N st. ....	John W. Bowers, .....	Sept. 15,	.....	.....	80	.....	.....	.....	.....	.....	.....	.....	.....	5 00	.....	.....	.....	.....	.....	.....	80	50	12 00	12	.....	.....	.....	10
Orient Heights, Sec. 2, Walley, Leyden, and Gladstone sts. ...	Dennis O'Connell, .....	July 27, 2 70	.....	.....	1 30	1 60	.....	.....	.....	.....	.....	.....	.....	5 00	5 25	5 30	5 00	.....	.....	.....	80	50	12 00	20	.....	50	10	10
East Boston, Horace st.....	A. Fairbanks .....	Aug. 1,	.....	.....	70	70	.....	.....	.....	.....	.....	.....	40 00	5 00	.....	.....	.....	.....	.....	.....	80	50	12 00	12	.....	.....	.....	10
East Boston, Homer and Byron sts. ....	A. Fairbanks .....	Sept. 10,	.....	.....	1 20	.....	.....	.....	.....	.....	.....	.....	47 50	5 00	.....	.....	.....	.....	.....	.....	80	50	12 00	12	.....	.....	.....	10

## EXPLANATION OF LETTERS.

A — Price per lineal foot earth excavation.	J — Price per lineal foot for building wooden box-sewer.	T — Price per cubic yard gravel refilling below grade.
B — Price per lineal foot earth excavation.	K — Price per manhole for building.	U — Price per thousand feet lumber, B.M., sheeting and shoring.
C — Price per lineal foot earth excavation.	L — Price per cubic yard for rock excavation.	V — Price per lineal foot underdrain.
D — Price per lineal foot Akron pipe laid.	M — Price per cubic yard for brick masonry, Am. cement mortar.	W — Price, each, for spruce piles driven.
E — Price per lineal foot Akron pipe laid.	N — Price per cubic yard for brick masonry, Port. cement mortar.	X — Price per cubic yard gravel refill, by special order.
F — Price per lineal foot earth excavation, wooden box-sewer.	O — Price per cubic yard for concrete.	Y — Price, each, for laying pipe connections.
G — Price per lineal foot earth excavation, wooden box-sewer.	P — Price per cubic yard for rubble-stone masonry.	Z — Price per lineal foot for pipe laid as chime.
H — Price per lineal foot earth excavation, wooden box-sewer.	Q — Price per cubic yard for dimension stone masonry.	
I — Price per lineal foot for building wooden box-sewer.	R — Price per thousand feet lumber, B.M.	
	S — Price per cubic yard earth excavation below grade.	

LOCALITY.	Contractor.	Date of Bid.	Prices.			
			A	B	C	
South Boston, D and Anchor sts.....	A. A. Hall .....	Nov. 16, 1891.....	\$0 90	\$7 78	\$45 00	(Special form.)

## EXPLANATION OF LETTERS.

A — Price per cubic yard earth excavation for 5-ft. X 4-ft. wooden box-sewer.

B — Price for building 5-ft. X 4-ft. wooden box-sewer.

C — Price for building manholes.

## Roslindale Brook Channel.

LOCALITY.	Contractor.	Date of Bid.	Prices.											
			Earth Excavation.			Rock excava- tion, cub. yds.	Concrete, cub. yds.	Rubble, cub. yds.	Stone paving, cub. yds.	Brick masonry, cub. yds.	Covering stone, cub. yds.	Excavation for pipe, lin. ft.	Lumber per M.	
Stony Brook, Roslindale .....	H. P. Nawn. ....	July 20, 1891 .....	Lineal feet.	Lineal feet.	Lineal feet.	\$3 00	\$5 00	\$4 00	\$2 25	\$14 00	\$13 00	\$0 50	\$11 00	
			\$1 04	\$4 36	\$1 68									

## Miscellaneous Contracts.

TITLE AND LOCALITY.	Contractor.	Date of Bid.	Prices.	
			Per cubic yard delivered within a radius of:	
			1 mile, \$1.90	2 miles, \$2.10
Quarrying stone, Heath st., Roxbury.....	Frederick Bieler.....	July 7, 1891.....		
Leasing ledge-lot, Heath st., Roxbury.....	Frederick Bieler.....	Nov. 15, ".....	\$0 18 per ton.	
Leasing ledge-lot, Rosseter st., Dorchester.....	Wm. J. Emerson.....	Oct. 10, ".....	10 per ton.	
Arch stone, Roslindale culverts.....	H. P. Nawn.....	Aug. 31, ".....	3 00 per cubic yard.	
Placing dredged material inside L. st. Bulkhead.....	Perkins & White ..	Nov. 3, ".....	20 per cubic yard.	
Teaming stone from Humboldt ave. to Dimock-st. crusher.....	James T. Davern.....	" 3, ".....	60 per cubic yard.	
Teaming paving-blocks from Court st. to Beacon st....	Owen Nawn.....	May 14, ".....	25 per square yard.	
			Outside of Boston Light.	
			4 miles.	6 miles. 8 miles. 10 miles.
Towing garbage to sea.....	Boston Tow-Boat Co.....	June 4, ".....	\$23 00	\$31 00 \$38 00
Towing garbage to sea.....	Commercial Tow-Boat Co.....	Oct. 28, ".....	23 00	31 00 35 00
Abutment, I. st., South Boston.....	Perkins & White.....	" 24, ".....	\$5,925 00.	
Leasing ledge-lot, Tremont st., Roxbury.....	Roxbury Stone Co.....	Apr. 8, ".....	45 per ton.	
Leasing wharf, Charles st. (Burnham's).....	James J. Costello.....	June 1, ".....	200 00 per month.	
Rebuilding sidewalk and fence, West Boston bridge <sup>1</sup> .....	Joshiah Shaw.....	Sept. 26, ".....	10,247 30.	

<sup>1</sup> Half the cost to be paid by the City of Cambridge.

## EMPLOYMENT OF LABOR.

With but few exceptions all grades of labor employed in the Street Department come under the regulations of the civil service, and the names of men employed by the department must be certified by the Commissioners before employment can be given. On the organization of the central office, the hiring of labor formerly employed by the several departments was taken charge of by the central office, and the duty of applying to the Civil Service Commission for men was assigned to the correspondence and complaint clerk. Books are kept at the central office by means of which the record of any one of the 2,200 employees of the department can be looked up, and his standing in the civil service and his character for industry be investigated.

The annexed table shows that 142 applications have been made on the Civil Service Commission for 419 men for various kinds of work. Of the 712 names submitted by the Civil Service Commission, 501 men were given employment and assigned to the different divisions. Of this number, 61 were veterans.

The following table shows in detail the applications made to the Civil Service Commission for labor :

TABLE NO. 1.

APPLICATIONS FOR MEN TO THE CIVIL SERVICE COMMISSION.			NAMES SUBMITTED BY THE CIVIL SERVICE COMMISSION.			NUMBER EMPLOYED. Divisions.						
Date.	Num-ber.	Grade.	Date.	Civil Service Draft Nos.	Num-ber.	Paving.	Sewer.	Sani-tary.	Street-Cleaning.	Bridge.	Total.	Veter-ans.
April 9, 1891.....	6	Sub-foremen .....	May 21, 1891.....	.....	10	.....	.....	.....	6	.....	6	
" 25, " .....	15	Laborers.....	April 29, " .....	65	30	18	.....	.....	.....	.....	18	
" 27, " .....	1	Sub-foreman.....	May 21, " .....	.....	3	.....	.....	1	.....	.....	1	
" 30, " .....	1	Mason .....	" 4, " .....	65	2	.....	1	.....	.....	.....	1	
May 1, " .....	4	Laborers.....	" 1, " .....	59 to 62	4	4	.....	.....	.....	.....	4	4
" 2, " .....	1	Laborer.....	" 2, " .....	64	1	1	.....	.....	.....	.....	1	1
" 4, " .....	1	" .....	" 5, " .....	67	1	.....	.....	.....	1	.....	1	1
" 4, " .....	2	Teamsters .....	" 6, " .....	60	4	.....	.....	2	1	.....	3	
" 5, " .....	3	Watchmen.....	" 5, " .....	68	3	.....	.....	.....	.....	3	3	8
" 5, " .....	1	Sub-foreman .....	" 5, " .....	.....	1	.....	.....	.....	1	.....	1	1
" 5, " .....	1	Laborer.....	" 6, " .....	71	1	1	.....	.....	.....	.....	1	1
" 6, " .....	5	Sewer-inspectors.....	" 5, " .....	.....	1	.....	1	.....	.....	.....	1	
" 6, " .....	1	Grainer.....	" 6, " .....	70	1	.....	.....	.....	.....	1	1	
" 6, " .....	30	Laborers.....	" 11, " .....	75	60	11	13	.....	.....	.....	24	1
" 6, " .....	20	" .....	" 11, " .....	74	40	6	14	.....	4	.....	24	2
Carried forward,	92	.....	.....	.....	169	41	29	3	13	4	90	14

Table No. 1. — Continued.

APPLICATIONS FOR MEN TO THE CIVIL SERVICE COMMISSION.			NAMES SUBMITTED BY THE CIVIL SERVICE COMMISSION.			NUMBER EMPLOYED. Divisions.						
Date.	Num-ber.	Grade.	Date.	Civil Service Draft Nos.	Num-ber.	Paving.	Sewer.	Sani-tary.	Street-Cleaning.	Bridge.	Total.	Veter-ans.
<i>Brought forward.</i>	92				162	41	29	3	13	4	90	14
May 6, 1891.....	4	Bracers .....	May 8, 1891 ...	73	7	.....	6	.....	.....	.....	5	
" 7, " .....	6	Masons .....	" 8, " ....	76	11	.....	7	.....	.....	.....	7	1
" 7, " .....	1	Laborer.....	" 7, " ....	72	1	1	.....	.....	.....	.....	1	1
" 7, " .....	1	" .....	" 7, " ....	79	1	1	.....	.....	.....	.....	1	1
" 7, " .....	1	" .....	" 8, " ....	77	1	.....	1	.....	.....	.....	1	1
" 8, " .....	2	Sub-foremen .....	" 9, " ....	.....	2	.....	.....	.....	2	.....	2	2
" 8, " .....	1	Welder.....	" 9, " ....	.....	1	1	.....	.....	.....	.....	1	1
" 8, " .....	10	Laborers .....	" 15, " ....	82	19	1	9	.....	2	.....	12	
" 8, " .....	1	Steam-driller.....	" 13, " ....	89	2	1	.....	.....	.....	.....	1	
" 8, " .....	1	Measurer... ..	" 9, " ....	80	1	1	.....	.....	.....	.....	1	
" 9, " .....	6	Teamsters .....	" 13, " ....	81	10	.....	1	.....	5	.....	6	
" 9, " .....	25	Laborers.....	" 16, " ....	83	50	1	31	.....	.....	.....	32	
" 12, " .....	2	Stone-cutters.....	" 20, " ....	86	3	2	.....	.....	.....	.....	2	1
" 13, " .....	12	Laborers .....	" 16, " ....	91	24	.....	20	.....	.....	.....	20	
" 13, " .....	6	" .....	" 16, " ....	90	12	.....	11	.....	.....	.....	11	
" 13, " .....	6	Bracers .....	" 19, " ....	92	10	.....	10	.....	.....	.....	10	

## STREET DEPARTMENT.

[illegible]

*Carried forward,*



Table No. 1. — Continued.

APPLICATIONS FOR MEN TO THE CIVIL SERVICE COMMISSION.			NAMES SUBMITTED BY THE CIVIL SERVICE COMMISSION.			NUMBER EMPLOYED. Divisions.						
Date.	Num- ber.	Grade.	Date.	Civil Service Draft Nos.	Num- ber.	Paving.	Sewer.	Sani- tary.	Street- Cleaning.	Bridge.	Total.	Veter- ans.
<i>Brought forward,</i>	271				488	51	231	3	34	5	324	35
June 9, 1891.....	2	Masons.....	June 10, 1891....	120	4	.....	3	.....	.....	.....	3	
" 9, " .....	3	Bracers.....	" 12, " .....	121	5	.....	4	.....	.....	.....	4	
" 9, " .....	1	Bridge-cleaner.....	" 11, " .....	122	2	.....	.....	.....	.....	1	1	
" 10, " .....	2	Masons.....	" 12, " .....	124	2	.....	2	.....	.....	.....	2	
" 11, " .....	1	Laborer.....	" 12, " .....	123	1	.....	1	.....	.....	.....	1	1
" 11, " .....	2	Laborers.....	" 13, " .....	125	4	.....	2	.....	.....	.....	2	
" 12, " .....	9	" .....	" 18, " .....	126	16	.....	.....	.....	9	.....	9	
" 15, " .....	2	" .....	" 18, " .....	127	3	.....	3	.....	.....	.....	3	
" 16, " .....	1	Laborer.....	" 18, " .....	130	3	.....	3	.....	.....	.....	3	
" 19, " .....	1	" .....	" 18, " .....	131	2	.....	2	.....	.....	.....	2	
" 19, " .....	2	Laborers.....	" 19, " .....	132	2	Failed to report.	.....	.....	.....	.....	.....	
" 19, " .....	1	Wheelwright.....	" 19, " .....	134	4	.....	4	.....	.....	.....	4	
" 19, " .....	1	Blacksmith.....	" 19, " .....	133	1	1	.....	.....	.....	.....	1	
" 21, " .....	2	Masons.....	July 10, " .....	137	1	1	.....	.....	.....	.....	1	
" 23, " .....	3	Laborers.....	June 24, " .....	138	4	.....	1	.....	.....	.....	1	
" 24, " .....	1	Carpenter.....	" 25, " .....	139	6	.....	2	.....	2	.....	4	

## STREET DEPARTMENT.

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[illegible]

*Carried forward,*

Table No. 1. — Continued.

APPLICATIONS FOR MEN TO THE CIVIL SERVICE COMMISSION.			NAMES SUBMITTED BY THE CIVIL SERVICE COMMISSION.			NUMBER EMPLOYED. Divisions.						
Date.	Num-ber.	Grade.	Date.	Civil Service Draft No.	Num-ber.	Paving.	Sewer.	Sani-tary.	Street-Cleaning.	Bridge.	Total.	Veter-ans.
<i>Brought forward,</i>	300				629	58	317	3	49	10	437	43
Aug. 7, 1891.....	1	Watchman.....	Sept. 1, 1891....	191	1	.....	1	.....	.....	.....	1	1
" 20, " .....	1	Weighter.....	Aug. 24, " .....	182	1	1	.....	.....	.....	.....	1	1
" 21, " .....	1	Laborer.....	" 24, " .....	183	1	.....	.....	.....	1	.....	1	1
" 21, " .....	1	Foreman.....	" 24, " .....	.....	1	.....	.....	.....	1	.....	1	1
" 21, " .....	1	Blacksmith's assistant.....	Sept. 3, " .....	184	1	1	.....	.....	.....	.....	1	1
" 21, " .....	1	Grader.....	Aug. 25, " .....	186	2	1	.....	.....	.....	.....	1	1
" 27, " .....	1	Watchman.....	" 28, " .....	188	1	.....	1	.....	.....	.....	1	1
" 31, " .....	1	Laborer.....	Sept. 1, " .....	190	2	.....	1	.....	.....	.....	1	1
Sept. 2, " .....	1	Coal-passer ...	" 18, " .....	195	1	.....	1	.....	.....	.....	1	1
" 2, " .....	1	Grader.....	" 8, " .....	193	2	1	.....	.....	.....	.....	1	1
" 2, " .....	1	Laborer.....	" 3, " .....	194	1	.....	.....	.....	1	.....	1	1
" 11, " .....	1	" .....	" 12, " .....	197	2	1	.....	.....	.....	.....	1	1
" 11, " .....	1	Stableman .....	" 18, " .....	198	1	1	.....	.....	.....	.....	1	1
" 14, " .....	1	Hostler ...	" 18, " .....	200	2	.....	.....	.....	1	.....	1	1
" 22, " .....	1	Rammer .....	" 28, " .....	205	1	1	.....	.....	.....	.....	1	1
" 22, " .....	1	Hostler .....	" 26, " .....	206	2	.....	.....	.....	1	.....	1	1

**STREET DEPARTMENT.**

[illegible]

Table No. 1. — *Concluded.*

APPLICATION FOR MEN TO THE CIVIL SERVICE COMMISSION.			NAMES SUBMITTED BY THE CIVIL SERVICE COMMISSION.			NUMBER EMPLOYED. <i>Divisions.</i>						
Date.	Num-ber.	Grade.	Date.	Civil Service Draft Nos.	Num-ber.	Paving.	Sewer.	Sani-tary.	Street-Cleaning.	Bridge.	Total.	Veter-ans.
<i>Brought forward,</i>	404				694	67	329	4	72	14	486	56
Nov. 12, 1891.....	1	Bracer.....	Nov. 17, 1891....	241	1	.....	1	.....	.....	.....	1	1
" 14, " .....	1	Laborer.....	" 16, " ....	242	1	.....	.....	.....	1	.....	1	1
" 17, " .....	1	" .....	" 24, " ....	243	1	.....	.....	.....	1	.....	1	1
" 20, " .....	2	Graders.....	" 25, " ....	249	4	2	.....	.....	.....	.....	2	2
" 19, " .....	2	Hostlers .....	" 27, " ....	245	2	.....	.....	.....	2	.....	2	2
" 20, " .....	1	Hostler.....	" 24, " ....	246	1	.....	.....	.....	1	.....	1	1
" 23, " .....	1	Bracer.....	" 23, " ....	247	1	.....	1	.....	.....	.....	1	1
" 25, " .....	1	Mason .....	" 25, " ....	250	2	.....	1	.....	.....	.....	1	1
" 27, " .....	1	Laborer.....	" 28, " ....	252	1	.....	.....	.....	1	.....	1	1
" 27, " .....	1	Ald.....	" 28, " ....	251	1	.....	.....	1	.....	.....	1	1
" 30, " .....	1	Bracer... ..	" 30, " ....	253	1	.....	1	.....	.....	.....	1	1
Dec. 8, " .....	1	Laborer.....	Dec. 9, " ....	2	1	.....	.....	.....	1	.....	1	1
" 11, " .....	1	" .....	" 15, " ....	3	1	.....	.....	.....	1	.....	1	1
Totals .....	419				712	69	333	5	80	14	501	61

# Grade and Number of Employees in the Street Department.

(Showing the average force employed during the summer.)

TITLE.	Divisions.						Total.
	Central Office.	Paving.	Sewer.	Sanitary.	Street-Cleaning.	Bridge.	
Superintendent.....	1						1
Deputy superintendents .....		1	1	1	1	1	5
Executive engineer .....	1						1
Purchasing agent and assistant,	2						2
Clerks .....	2	5	6	4	1	1	19
Foremen .....		11	8	4	11	3	37
Sub-foremen .....		23	13	10	12	4	62
Inspectors.....		6	22				28
Civil engineers .....			3				3
Draughtsmen.....	1		5				6
Transitmen.....			3				3
Levelmen .....			6				6
Rodmen.....			17				17
Aid .....				1			1
Blacksmiths and assistants .....		15	1	5			21
Bracers .....			17				17
Bridge-cleaners .....						2	2
Boys .....		1	23			2	26
Captain .....				1			1
Carpenters and assistants.....		21	6			22	49
Coal-passers .....			4				4
Draw-tenders .....						20	20
Assistant draw-tenders .....						32	32
Deck-hand .....			1				1
Dumpers.....				12	5		17
Engineers and assistants .....		14	15			11	40
Feeders.....				4			4
Firemen.....			5				5
Gate-men .....			3				3
Harness-makers.....		2		2			4
<i>Carried forward</i> .....	7	99	158	44	30	98	436

Grade and Number of Employees, etc.—*Concluded.*

TITLE.	Divisions.						Total.
	Central Office.	Paving.	Sewer.	Sanitary.	Street-Cleaning.	Bridge.	
<i>Brought forward</i> .....	7	99	158	44	30	98	436
Helpers .....				190	54		244
Horse-shoers .....				4			4
Hostlers .....			2			1	3
Janitors .....			2				2
Laborers .....		447	361		157	2	967
Ledgemen .....			4				4
Machinist .....			1				1
Masons (stone and brick) .....			34				34
Masons' tenders .....			6				6
Measurers .....		3					3
Messengers .....	2	5	2	2	2	4	17
Oilers .....			7				7
Patch pavers and assistants .....		93					93
Painters .....				2		10	12
Pilot ..			1				1
Pipe-layers .....			2				2
Powdermen .....		3					3
Riggers .....			2				2
Rope-splicer .....			1				1
Stablemen .....		10		9			19
Steam-drillers .....		12					12
Steward .....			1				1
Stone-cutters .....		15	3				18
Store-keeper .....			1				1
Teamsters .....		63	16	159	57	2	297
Veterinary surgeon .....			1				1
Watchmen .....		8	12	5		4	29
Weighers .....		4					4
Wharfingers .....		5	1				6
Wheelwrights .....		2		2			4
Yardmen .....		8	2	7	1		18
<b>Totals.</b> .....	9	777	620	424	301	121	2,252

## COMPLAINTS.

Complaints received by telephone, or by mail, are put in the hands of a complaint-clerk, who gives to them his personal attention, in the following manner :

A record of each complaint is made in a book kept for such purposes, the system of keeping the same and rectifying complaints, as far as practicable, being as follows :

First, on the receipt of letter or notice, an abstract is made of the same in the complaint book, and a copy on a form adopted for such purposes is sent to either of the divisions for investigation. The district foreman to whom the complaint was referred investigates the cause and recommends the adoption of certain improvements or immediately rectifies the cause. He then makes an endorsement on the back of notice and returns it to the central office. The recommendations or improvements are also recorded in the complaint book, and if of enough importance the complainant is notified of the recommendations and intentions of the department.

The number of such complaints received at this office since May 1, 1891, to January 1, 1892, was 251, of which

145 related to the Paving Division.

25	"	"	Sewer	"
45	"	"	Sanitary	"
27	"	"	Street-cleaning	Division.
9	"	"	Street-watering	"

Complaints, to receive proper attention, should be sent to the central office and not to some local foreman.

All complaints should be signed with full name and address, as anonymous communications receive no attention.

## EXPENSES OF CENTRAL OFFICE.

For the current expenses of the central office the City Council appropriated the sum of fifteen thousand dollars (\$15,000), to which was added by transfer the sum of one thousand and fifty dollars (\$1,050), making a total of sixteen thousand and fifty dollars (\$16,050) for the nine (9) months ending Jan. 1, 1892. The same was expended as follows :

Salaries	.	.	.	.	.	.	\$13,155	10
Stationery, printing, postage, etc.	.	.	.	.	.	.	1,144	09
Atlases, books, etc.	.	.	.	.	.	.	843	10



Rubber stamps, etc. . . . .	\$48 80
Board of horse, shoeing, clothing, etc. . .	536 00
Telephones . . . . .	165 48
Travelling expenses, etc. . . . .	601 10
Miscellaneous office-supplies, etc. . . .	56 33

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\$16,050 00

### BRIDGE DIVISION.

Previous to May 1, 1891, the entire force of mechanics employed in the Bridge Division, consisting of carpenters, painters, laborers, etc., were under the charge of one foreman, with headquarters at the Foundry-street yard. The territory covered by this force reached from Winthrop to Charlestown on one side of the Charles river, and from the City Proper to Milton on the other side. Bridge repairs, especially such as are required on the tide-water bridges, require immediate attention, and as all tools, gearing, blocking, and stock were stored at one yard, and as much time was lost by the transfer of the men from one remote district to another when any exigency for their services arose, it was deemed better to divide the territory into two districts.

The Northern District, with headquarters on Charles-river bridge, includes all bridges north and west of the Charles river.

The Southern District, with headquarters at Foundry street, includes all bridges south of the Charles river.

This division of territory equalizes, as nearly as possible, the care of the most important tide-water bridges, and places within easy access all necessary appliances for doing such work as may be required in each district. The headquarters of both of these districts have telephone connections, and, if necessary, the whole repair-force of the division can be concentrated at any point, in case of immediate repairs being required on any important bridge.

The above system of dividing the work into two districts has worked satisfactorily, and has resulted in economy and efficiency.

Previous to May 1, 1891, all draw-tenders reported directly to the Superintendent's office, and on the most trivial matters left their bridges without the services of a draw-tender. In order to allow the draw-tenders to put in their whole time on their bridges, the office of Chief Draw-

tender was created, and an old employee of the department selected for the position. All daily bridge-reports of draw-tenders are now made to the Chief Draw-tender, who also makes provision for all needed supplies, and, in general, under the direction of the Deputy Superintendent, supervises the entire force employed on the drawbridges.

The report of the Deputy Superintendent, Appendix A, gives the detailed report of expenditures, and amount of work done on each bridge, together with much other information of a useful nature.

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## BOSTON AND CAMBRIDGE BRIDGES DIVISION.

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By the provisions of the acts of the Legislature of 1870, the care of the West Boston, Canal, and Prison-point bridges is placed in the hands of two Commissioners, one of whom is appointed by the City of Cambridge, the other by the City of Boston. By the terms of the ordinances, the Superintendent of Streets is Commissioner for the City of Boston.

The following report shows the present condition of the bridges, the work that has been done during the year, and the work proposed to be done during the coming year.

### WEST BOSTON BRIDGE.

The repairs of the westerly bulkhead, sidewalk, and adjacent roadway, alluded to as necessary in the last report, have been made.

Substantially the same plan has been adopted as the one used in rebuilding the down-stream side in 1886.

The bridge has been relieved of a large amount of gravel and mud, all decayed timber has been removed, and a new sidewalk of hard-pine timber and kyanized spruce-plank has been built, and upon it a brick sidewalk has been laid.

The old edgestones have been reset. The roadway plank wherever uncovered has been protected by a layer of salt mud, and the entire space between the curbstone and nearest railroad track has been repaved, using the old paving-blocks. A new hard-pine fence has been built for the entire length of bridge repaired. The part of the bridge repaired as above described includes all the up-stream sidewalk between the draw and the Cambridge abutment, and about one hundred feet in length on the same side of the bridge next the Boston abutment.

The repairs have been made by contract by Josiah Shaw, who was the lowest bidder. Total cost, \$5,250.25.

A new boiler for the engine has been provided, and the turning-apparatus put in good order.

The up-stream end of the draw-pier is in bad condition, and will require repairs and strengthening next season. The plank sides of the waterway are in bad condition and require attention. The paving of the roadway and sidewalk from the draw to Boston end will require attention next year, and the bulkheads next the Charles-river embankment should be repaired.

With the exceptions above noted, the bridge is in as good condition as it is practicable to put so old and narrow a structure, and the need of a new, wider, and more commodious bridge becomes more urgent year by year.

#### CANAL OR CRAIGIE'S BRIDGE.

The foundation to the engine-house on the draw-pier has been put in good condition. The roadway paving laid last year has done good service, and the remaining surface should be repaved. The fender on the up-stream side is in bad condition. The hard bottom prevents the driving of piles in the usual manner, and a different plan must be adopted to protect the bridge from vessels. The sides of the waterway need new planking. The wooden draw shows signs of age, and piling under the Boston end will soon require attention.

The bridge as a whole is in fairly good and safe condition.

#### PRISON-POINT BRIDGE.

The draw-pier has been replanked, and ordinary repairs made to the roadway and machinery for moving the draw.

#### IN GENERAL.

The usual statement is appended, of the number of draw-openings and the number of vessels passed through.

The amount of revenue received for dockage, sale of old material, etc., during the year has been \$633.40, one-half of which has been paid over to City of Cambridge; also the sum of \$1,515.27 paid by Park Department for building taken on West Boston bridge for the Charles-river embankment, and a like sum paid to City of Cambridge.

The following is a statement of the payments made by the City of Boston on account of the West Boston, Canal, and Prison-point bridges from January 1, 1891, to January 1, 1892:

Amount expended from appropriation for 1890-91 . . . . .	\$1,543 48
Amount expended from appropriation for 1891-92 . . . . .	10,322 94
Total amount expended . . . . .	<u>\$11,866 42</u>

## CONDITION OF APPROPRIATION.

Amount of appropriation for financial year 1891-92 . . . . .	\$12,000 00
Amount expended to Feb. 1, 1892 . . . . .	10,322 94
Unexpended balance . . . . .	<u>\$1,677 06</u>

## Classification of Expenses.

1891.	General Account.	Canal Bridge.	Prison- point Bridge.	West Bos- ton Bridge.	Total.
Salaries . . . . .	\$395 00				\$395 00
Printing and stationery . . . . .	43 28				43 28
Travelling expenses . . . . .	26 72				26 72
Draw-tenders and assistants . . . . .		\$1,095 00	\$215 94	\$900 00	2,211 03
Ordinary repairs . . . . .		308 11	211 25	213 76	733 13
Lumber . . . . .		344 05	221 68	46 50	622 23
Iron-work . . . . .		61 15	77 60	158 16	296 91
Electric lights . . . . .		390 00		585 00	975 00
Fuel . . . . .		108 40		86 70	195 10
Sundries . . . . .		53 56	4 15	32 07	89 78
Cleaning bridges . . . . .		98 80	50	92 95	192 25
Tools and hardware . . . . .		41 96	9 82	3 82	55 60
Paint and painting . . . . .		11 77		1 57	13 34
Inspection . . . . .		77 50	37 50	200 00	315 00
Watering roadway . . . . .		200 00		200 00	400 00
Water-rates . . . . .		14 40	4 95	9 90	29 25
Advertising . . . . .				22 56	22 56
Rebuild sidewalk and fence . . . . .				5,250 25	5,250 25
Totals . . . . .	\$465 00	\$2,814 70	\$783 39	\$7,803 33	\$11,866 42

**Number of Times the Draws in West Boston, Canal, and Prison-Point Bridges have been opened, and the Number of Vessels which have passed during the Year ending Jan. 31, 1892.**

DATE.	West Boston.		Canal or Craigie's.		Prison-point.	
	Number of Draw Openings.	Number of Vessels passed through.	Number of Draw Openings.	Number of Vessels passed through.	Number of Draw Openings.	Number of Vessels passed through.
Jan. 1, 1891, to Feb. 1, 1892.						
January .....	9	14	96	82	21	35
February .....	26	46	97	121	14	19
March .....	36	57	147	185	11	14
April .....	148	222	383	392	18	21
May .....	222	378	456	482	29	35
June.....	246	383	362	371	61	100
July .....	229	371	431	561	26	35
August ....	232	332	427	452	29	42
September.....	207	334	384	512	21	25
October.....	122	201	297	369	26	34
November .....	166	279	377	284	27	38
December.....	107	193	298	315	64	297
January, 1892 .....	40	60	131	111	57	248
Totals.....	1,790	2,870	3,876	4,237	404	933

**CANAL BRIDGE PROPERTY-SCHEDULE.**

\* Three street-hoes, \* 3 snow-scrapers, 1 coal-scoop, 2 long pokers, 3 corn-brooms, 2 cold-chisels, 1 crowbar, 1 hammer, 1 sledge, \* 1 snow-plough, 1 saw, 6 wrenches, 4 oil-cans, 2 ice-chisels, 4 hand-lanterns, \* 16 street-lanterns, 2 earth-picks, 1 United States flag, 30 fathoms rope, 1 lamp, 1 iron block, 1 wheelbarrow.

**PRISON-POINT BRIDGE PROPERTY-SCHEDULE.**

One hundred feet woven hose, 1 iron shovel, 1 pickaxe, \* 1 adze, 1 axe, 1 brace with 3 bits, \* 2 chisels, 1 hammer, 2 Yale padlocks, 1 snow-shovel, 1 broom, 1 street-hoe.

\* In poor condition.

## WEST BOSTON BRIDGE PROPERTY—SCHEDULE.

Two wheelbarrows, 1 United States flag, 200 feet rope, 2 snatch-blocks, 1 ladder, 3 lanterns, 2 bushel baskets, 8 oil-cans, 1 long poker, 1 tube-cleaner, 2 brooms, 1 table, 1 monkey-wrench, 1 auger, 1 vice, 1 Stillson wrench, 2 hammers, 1 saw, 1 mallet, 1 ice-saw, 2 pails, 1 adze, 1 tom-maul, 1 iron bar, 5 hoes, 3 ice-chisels, 1 axe, 2 files, \* 10 iron shovels, \* 3 wooden shovels, \* 175 feet hose.

## Statement of Traffic over Bridges.

1891.	West Boston Bridge. Nov. 14, 6 A.M. to 7 P.M.	Canal Bridge. Nov. 14, 6 A.M. to 7 P.M.	Pleasant-point Bridge. Nov. 14, 6 A.M. to 7 P.M.
Teams to Boston.....	1,322	2,040	1,904
Horse and electric cars to Boston.....	647	235	235
Foot-passengers to Boston.....	2,667	3,990	2,276
Teams to Cambridge.....	1,297	3,555	
Horse and electric cars to Cambridge.....	626	225	
Foot-passengers to Cambridge.....	1,939	3,550	

} Both ways.

\* In poor condition.

## PAVING DIVISION.

The following tables show the length of accepted streets and the character and areas of pavements Feb. 1, 1892 :

## Length in Miles.

	Asphalt.	Block.	Brick.	Cobble.	Telford and Macadam.	Gravel.	Not graded.	Total.
1890 Report.	3.2	64.9	. . . .	6.5	174.6	169.9	. . . .	409.7
1892.								
City Proper, Feb. 1 .	4.07	39.67	0.36	4.41	31.33	0.78	0.07	80.69
Charlestown . . . . .	0.03	7.68	. . . .	0.29	14.46	0.03	0.05	22.54
East Boston . . . . .	. . . .	3.50	. . . .	0.48	2.09	20.80	0.18	26.55
South Boston . . . . .	0.33	10.24	. . . .	0.75	23.33	1.82	5.71	42.18
Roxbury . . . . .	0.23	6.38	. . . .	0.01	52.24	16.06	0.70	75.62
W. Roxbury . . . . .	. . . .	0.09	. . . .	. . . .	24.67	47.29	0.67	72.72
Dorchester . . . . .	. . . .	1.73	. . . .	. . . .	40.01	26.59	1.47	79.80
Brighton . . . . .	. . . .	. . . .	. . . .	. . . .	16.43	16.61	1.45	34.49
Total . . . . .	4.66	69.29	0.36	5.94	204.55	139.48	10.30	434.59

\* Of this amount 0.48 miles = asphalt blocks.

There have been laid out and accepted by the Street Commissioners during the year 7.87 linear miles, .12 miles have been discontinued, making a total increase of mileage of 7.75 miles. The discrepancy between 434.59 miles and 417.45 miles (obtained by adding the increased mileage to the 1890 report) is owing to a remeasurement having been made this year of the street mileage, and an error of seventeen miles having been discovered in the previous reports.

The rapid increase in this mileage, from year to year, is shown by the following table :

1859.....	111.50 Miles.	1882.....	359.85 Miles.
1871.....	201.32 "	1883.....	367.99 "
1872.....	207.4 "	1884.....	374.10 "
1873.....	209.24 "	1885.....	379.60 "
1874.....	313.90 "	1886.....	383.55 "
1875.....	318.58 "	1887.....	390.80 "
1876.....	327.50 "	1888.....	392.72 "
1877.....	333.2 "	1889.....	397.84 "
1878.....	340.39 "	1890.....	404.6 "
1879.....	345.19 "	1891.....	409.6 "
1880.....	350.54 "	1892.....	434.59 "
1881.....	355.5 "		

The following table shows the area of pavement in the city of Boston, in square yards :

	Asphalt.	Block.	Brick.	Cobble.	Telford and Macadam.	Gravel.	Not Graded.	Totals.
Feb. 1, 1891.	54,070	1,429,820		109,890				
Feb. 1, 1892.								
City Proper,	*65,655	900,853	3,638	52,156	606,675	13,207	1,204	1,003,383
Charlestown.	421	178,060	...	2,936	219,471	161	762	401,811
E. Boston.	...	83,236	...	9,621	39,536	889,142	3,555	525,140
S. Boston.	4,271	218,076	...	14,959	405,661	38,173	118,371	799,511
Roxbury.	3,559	139,776	...	717	932,270	263,319	9,530	1,349,171
W. Roxb'y.	...	2,067	...	...	433,826	739,700	10,492	1,186,085
Dorchester.	...	39,444	...	...	718,302	613,177	31,050	1,401,973
Brighton.	...	...	...	...	309,365	254,749	26,977	681,091
Total ..	73,906	1,521,602	3,638	80,389	3,755,106	2,311,628	201,941	7,948,170

\* Of this amount, 8,501 sq. yds. = asphalt blocks.

Total public streets, 134.59 miles.

NOTE. — The city is subdivided on former boundary lines.

In order to compare the character of the pavements in the city of Boston with the other cities of the country, the following table is presented :



### Distribution of Kinds of Pavements. Public and Improved Streets.

	Washington (1890) Per cent.	St. Louis (1890) Per cent.	Chicago (1890) Per cent.	Buffalo (1890) Per cent.	New York (1890) Per cent.	Philadelphia (1890) Per cent.	Boston (1891) Per cent.
Sheet asphalt . .	26.07	0.94	0.76	30.49	3.44	3.23	0.96
Coal-tar . . . .	23.06						
Asphalt block . .	5.19		0.62			2.47	0.11
Block stone . .	14.18	29.07	3.45	40.45	67.61	15.69	15.94
Wood . . . . .	0.18	1.25	61.27				
Cobble . . . . .	6.94				90.70	49.21	1.37
Vitrified brick . .				0.02		2.60	90.08
Itubble . . . . .						15.16	
*Telford . . . . .		4.34		0.29			10.00
*Macadam . . . .	4.83	64.40	33.90	23.75	5.10	11.64	37.07
*Gravel . . . . .	19.55				23.15		34.47
	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Mileage . . . .	165.70	421.97	609.64	347.75	475.16	762.20	434.59

\* Not usually separated in the reports of the various cities.

An inspection of the foregoing tables shows that in Boston only 15.9% of the total mileage is paved with granite blocks; 1.07% paved with asphalt; .08% paved with brick; 1.4% paved with cobble; the remainder, 81%, being either macadamized or gravelled.

This percentage of macadam and gravelled streets is larger than most of the other cities in the country, St. Louis, which compares the nearest with Boston, having 64%, while Buffalo has but 30% macadamized, and over 70% of its streets well paved. This large percentage of macadamized streets accounts largely for the expense of maintaining the department, compared with other cities.

The inferior condition of most of the paved streets of Boston is apparent to every one. Several causes have operated to bring this condition about.

In the first place, the quality of the stone blocks with which the pavement was originally laid was poor; these blocks, in most instances, were roughly cut, of irregular dimensions, and laid without proper care, so that, in some cases, even where the original pavement has never been dis-

turbed, it has worn unequally and has settled in such a manner as to present a very uneven surface.

The numerous structures under the pavement, consisting of gas-pipes, water-pipes, telephone conduits, steam-heating pipes, electric-wire conduits, and sewers with their connections, necessitate a constant tearing up of the pavements to make connections and remedy breaks and defects.

There is also the tearing up and replacing of railroad tracks which is continually going on.

This continual disturbance of the pavement and the impossibility of replacing it over an excavation in such a manner as to leave the pavement in its original condition has resulted in the present uneven appearance of many of our streets, making them uncomfortable to travel over and difficult to clean.

It will be impossible to construct and maintain first-class pavements in our commercial and business thoroughfares, as long as private corporations are allowed legislative franchises to not only cover the greater part of the surface with railroads, drip-boxes, manholes, gate-boxes, and covers of all sizes and kinds, but also to undermine the same with a perfect network of contrivances, some seething with steam, some flowing the most volatile, gas-producing and inflammable hydrocarbons, and some conducting the electric current—all being liable to get out of repair and requiring excavations and disturbance of the street-surface to keep them in condition.

The spirit of self-interest and the desire to realize large dividends tend toward the greatest economy on the part of corporations in replacing the disturbed portions of street and pavement; thus leaving to the city a great deal of work to finally adjust and regulate at the expense of the public funds.

The only complete remedy for these evils is to build a large brick subway beneath the sidewalk or roadway capable of containing every wire or pipe needed for all purposes, with only its manholes appearing at the surface.

Until such time as an underground conduit of a size sufficient to contain all gas, water, and other pipes and wires is laid, it will be impossible to prevent the tearing up of the pavements, and dependence must be placed on the power of the department to grant or refuse permits and to have all openings repaved in as good a manner as possible under the circumstances. The amendment to the ordinance made this year, whereby the parties who make openings are obliged to keep the pavements in repair for six months, and, on their failure to do so, to be obliged to pay the cost of the city's doing the work, will tend to lessen these evils.

The following list shows the companies and corporations in the city which, from the nature of their business, have occasion to disturb the street-surface most frequently :

Albany Street Freight Railroad Company.  
Boston Electric Light Company.  
Boston & Albany Railroad Company.  
Boston & Maine Railroad Company.  
Boston, Revere Beach, & Lynn Railroad Company.  
Boston Gaslight Company.  
Brookline Gaslight Company.  
Charlestown Gaslight Company.  
Dorchester Gaslight Company.  
East Boston Gaslight Company.  
Edison Electric Illuminating Company.  
Fitchburg Railroad Company.  
Jamaica Pond Aqueduct Company.  
Jamaica Plain Gaslight Company.  
New England Telephone & Telegraph Company.  
New York & New England Railroad Company.  
Old Colony Railroad Company.  
Roxbury Gaslight Company.  
South Boston Gaslight Company.  
West End Railroad Company.  
Western Union Telegraph Company.

Eleven thousand three hundred and twenty permits were granted during the past year to open streets. The excavations made under these permits aggregate 110.7 miles in length, and show the proportions to which this nuisance has grown.

One thousand nine hundred and sixteen openings were made under "emergency permits" for breaks in water and gas pipes requiring immediate attention.

#### MACADAMIZED STREETS.

Boston has a larger proportion of macadamized streets than any large city in this country.

While streets of this description can be constructed cheaply, the rapid deterioration of the surface requires an immense outlay to keep them in repair.

With constant attention in the way of resurfacing and watering, these streets are convenient for travel, but without this care, holes are soon worn in the surface. Macadamized streets are always muddy in wet weather, and are not suited to stand the travel of our thoroughfares leading to the suburbs.

All the macadamized streets of the City Proper, except those whose grade is more than 6 per 100, and all the main macadamized avenues which radiate to the suburbs, should be paved with granite blocks or asphalt, as rapidly as the finances of the city will permit.

In determining the character of the pavement to be used on a street, regard must be paid to several considerations, among which are its life, first cost, cost of maintenance, convenience, appearance, and adaptability to the traffic it may be expected to undergo during its life.

The pavement laid this year has been laid in accordance with the best modern practice, and in accordance with what seemed for the best interests of the community.

The business streets in exclusively commercial sections subjected to the heaviest travel have been paved with granite blocks.

Where all water, gas, sewer, telephone, and other pipes are already laid, and where there is reasonable cause to believe that the pavement will not be constantly torn up, the blocks have been laid on a concrete base of hydraulic cement, and the joints filled with pebbles and road-pitch.

A concrete base is especially applicable in loose soil where there is liable to be trouble from sub-soil water.

The streets subjected to heavy travel in which the various pipes have not as yet been laid, have been paved with granite blocks on a gravel base in the ordinary manner; more attention, however, has been paid to rolling and preparing the foundation-bed than was the practice in former years, with the result of securing a more even pavement.

The residence streets, where sufficient appropriation existed, have been paved with sheet asphalt, asphalt blocks, or brick, as seemed most suited to the case in hand.

Brick paving has only obtained on a few cross-streets, with a view of putting it to a thorough test. It can be used to advantage on streets of comparatively light traffic, where a less expensive form is desired than asphalt.

It is believed that the above kinds of pavement include all the varieties necessary to pave our streets in a first-class manner. Wood pavements, which are extensively used in Western cities and in cities abroad, are not adapted to this city. The difficulty of keeping them clean, owing to the tenacity with which filthy matter of all kinds adheres to them, and the exhalations which arise from their absorption of fluids, render them an unsanitary pavement. They are short-lived and require frequent repairs.

The granite-block pavement laid on a face of hydraulic-cement concrete is believed to be the pavement best adapted

to our business streets, especially where all water, gas, telephone, and electric pipes have been laid and connections made. This pavement possesses the advantage of the longest life, is easily cleaned, gives a good foothold for horses, and requires but little expenditure for repairs. Its chief disadvantage is its noise. The average cost of this pavement, including all labor and materials, is \$4.70 per square yard. This pavement has been laid on Tremont street, between Cornhill and Boylston street, and a comparison of the paving between the railroad tracks with the rest of the street shows what can be done with first-class granite blocks properly laid.

A number of streets have been paved with granite blocks laid on the ordinary gravel foundation. This style of paving has obtained on such streets as were not entirely built up with business blocks, and where a subsequent change in the character of the buildings will involve numerous excavations to connect with water, gas, electric, and other pipes. The quality of the stone blocks used has been first-class, however, and when the street has arrived at its ultimate development (provided it does so during the life of the stone blocks), the street can be repaved with the same blocks set on a concrete base.

A large amount of asphalt pavement has been laid this year on different streets, among which may be mentioned: Beacon street from Charles street to Arlington, Cabot street, Columbus avenue, Hudson street, Austin street, Kilby street, Court street, etc. This pavement is particularly suited to residence streets, and such business streets as are free from horse-car tracks and are lined with buildings occupied mostly by offices, where the noise of a granite-block pavement could not be borne. This pavement, when made of genuine asphalt and prepared and laid in the best manner, gives a very satisfactory result. Such of these pavements in Boston as have given out have done so by neglect to promptly repair them, or else by the opening of trenches through the street for the various gas, water, or other pipes. The life of the pavement is not so long as that of a granite-block pavement, but with reasonable care the pavement is good for many years. All the asphalt pavements laid are kept in repair at the expense of the contractors for five years. The asphalt pavement is easily cleaned, and presents a pleasing appearance to the eye. Much has been said and written about the slipperiness of this pavement. If the pavement is kept clean and free from the thin coating of mud which is apt to accumulate, and is sanded in case of sleet falling on the surface, it gives a better foot-

ing than a stone pavement. Statistics prove that more horses fall on a mile of stone pavement than on a mile of asphalt pavement. The cost of the asphalt pavement laid this year has averaged about \$3.50 per square yard.

Several streets have been paved during the year with an asphalt-block pavement. This pavement, while not so durable as the sheet asphalt, has the advantage of being easily replaced in case of excavation being made through its surface for gas or water pipes. It presents a very handsome appearance when well laid, and is well suited for light travel. The city of Baltimore has miles of streets paved with this material, which have been in good repair for eight years.

The use of brick for a street pavement has been attracting the attention of municipal authorities for the last few years.

It is extensively used in several Western and Southern cities, and has lately been tried in some of the large cities, among which are Cleveland, Columbus, Chicago, Philadelphia, Indianapolis, Omaha, Peoria, Baltimore, Washington, Harrisburg, Wheeling, Johnstown, Clinton. The claims made for this pavement are its low cost, combined with its durability and appearance.

There are now four streets paved in this city.

Hamilton place (a private way) was paved in 1888 by the abutters, and is now in good condition. It is subjected to light travel only, so that conclusions cannot be drawn from this street alone concerning the durability of the pavement. Genesee, Seneca, and Oswego streets have been paved with brick this year; the first two streets with a Keramite brick, at a cost of \$2.75 per square yard; the last-named street with a brick manufactured in Rhode Island, at a cost of \$2.40 per square yard.

The following method was observed in paving these streets. The macadam was excavated to the depth of seven inches and the road-bed then rolled with a horse-roller. A two-inch layer of gravel was then spread and rolled and the bricks laid on a thin sand bed. After being rammed in place, the surface was flooded with water and the bricks again rammed to a true surface, after which the joints were grouted with Portland cement mortar, mixed 1 to 1.

These streets have only been paved six months, so that no judgment can be passed upon them.

There are various methods of laying a brick pavement, and it is proposed during the coming year to lay the bricks on a concrete base as well as by other methods, so that a comparison may be obtained. Great care has to be taken in the selection of the brick to be used, and before trying

this style of pavement, the department made a series of tests of different bricks submitted.

The bricks should have toughness, elasticity, homogeneity, and impermeability, and this condition should obtain in each and every layer throughout the kiln.

The common tests that are applied are :

1. Absorption test by volume or by weight.
2. Test for compressive strength.
3. Test for transverse strength.
4. Test for abrasion.

Under the first test, measurements by weight usually show a less power of absorption than by volume, but, as the specific gravity of a brick or paving stone has no bearing on its wearing qualities, the volume test seems more proper.

Likewise, the transverse strength is of far greater value than the compressive strength. The test for abrasion, or the "rattler test," is made by placing the bricks to be tested in a revolving cylinder together with one or two hundred weight of "foundry shot," or nuggets broken off of iron castings. The per cent. of abrasion is obtained from the loss by weight at the end of stated periods of time.

The following table shows the results obtained by the tests made by the department :

**Resistance of Paving Brick, Stone, and Asphalt to Abrasion and Impact. Mechanical Tests made with a Foundry "Rattler."**

Reference No.	Loss in per cents of the original weight during			Total loss.	Absorptive power in per cents of the volume of the dry brick.
	1st half hour.	2d half hour.	3d half hour.		
	Granite and Asphalt.				
1 . . .	0.88	0.46	0.37	1.71	0.8
2 . . .	3.63	2.57	2.42	8.62	
	Paving Brick.				
3 . . .	1.43	0.96	0.48	2.87	2.2
4 . . .	2.88	1.15	0.99	4.97	
5 . . .	1.51	0.71	0.55	2.77	
6 . . .	0.84	0.30	0.30	1.44	
7 . . .	0.68	0.49	0.37	1.54	1.5
8 . . .	0.62	0.49	0.37	1.48	2.0
9 . . .	0.62	0.56	0.49	1.67	1.5
10 . . .	2.81	1.76	1.22	5.79	3.0
11 . . .	1.98	1.86	1.68	5.52	6.0
12 . . .	1.03	0.54	0.36	1.93	6.0
13 . . .	0.96	0.41	0.25	1.56	
14 . . .	4.32	3.66	4.24	12.22	23.3
15 . . .	1.60	0.97	0.62	3.19	10.0
16 . . .	2.19	1.83	1.60	5.62	14.0
17 . . .	1.72	1.00	0.55	3.27	
18 . . .	1.66	0.90	0.67	3.23	

	<b>Addenda.</b>	<b>Absorptive power in per cents of the weight of the dry brick.</b>
7 . . .		0.17
8 . . .		0.19

Three samples of the brick, numbered 7, 8, 9, were tested at the Watertown Arsenal, as to their transverse strength, with the following results :



	Modulus of rupture in lbs. per square inch.
A . . .	1925
B . . .	2072
C . . .	1700

The foregoing tests show conclusively that there is a great variation in the toughness of the so-called paving bricks, and that the variation exists in bricks from the same yard.

A range from 1.44% to 12.22% loss by abrasion is certainly very great, and in absorption a range from 1.5% to 23.3% is enough to put the materials into a doubtful class; all of which goes to show that in the selection of brick for pavement great care must be taken to secure a uniformity as to vitrification and composition, if we expect to find "life" in this comparatively new form of pavement.

The special features of the year's work in paving are the increase in asphalt roadway-paving, — both the sheet paving and the asphalt blocks, — the use of brick paving, and the use of a concrete base for the ordinary well-known and thoroughly tried granite blocks.

Asphalt paving is used in large cities in almost all parts of the civilized world, and when used in streets which are suited for it, and not taking the question of cost into account, is undoubtedly the most desirable pavement which has come into common use. The streets upon which it can be used are limited. It is unsuitable for steep grades, for streets subjected to unusually heavy traffic, or for narrow streets with railway tracks. It is costly to put down in the first instance, and costly to maintain, but for city streets used for residences it is unsurpassed, both for the comfort of the occupants of the houses, and also for those who use the streets. From a sanitary point of view it stands at the head of the list of varieties of paving, as it is perfectly smooth and absolutely impervious to moisture.

Its first cost is about ten per cent. greater than that of a first-class granite-block paving on gravel, and the cost of maintenance for a term of years is much greater, but just how much greater the limited experience of this city does not satisfactorily answer.

The addition of a concrete base to the ordinary granite-block paving is no new experiment, but it has been employed to only a limited extent heretofore in Boston. Its advantages are marked, and its use for streets with the

heaviest traffic is to be commended. It consists of a solid foundation-layer or sheet of cement concrete, from six to eight inches in thickness, and covering the entire area to be paved; upon this the blocks are set in the usual manner, on a layer of sand about two inches in thickness. The paving may then be finished in the usual manner, by filling the interstices between the blocks with coarse sand or fine screened gravel, or they may be filled with heated pebbles and melted pitch, as was done on Tremont street. The pitch-joints have no necessary connection with the concrete base, and either one is used without the other.

The advantages of the concrete base are those of a good foundation, which is indispensable for all good work. The concrete foundation is superior to gravel, however well compacted; and it serves the same good purpose in block paving that it does in asphalt paving.

As a preliminary to all paving, the various pipes and structures in the street must be put in order, and more or less trenches or other excavations made. The concrete base practically overcomes uneven settling, by bridging over the trenches and distributing the weight of travel over larger areas. Again, the paving-blocks are set in two inches of sand on a concrete base, and on six inches of gravel in ordinary paving. The settlement in the two inches, due to uneven depths of stone, is much less than in the paving on gravel, giving a smoother surface, and additional settling of each block independently of others is entirely prevented.

The disadvantages of the method are, first, the extra cost. This will not exceed one dollar per square yard for ordinary street-paving; second, difficulty of excavation for repairs, etc., of pipes in the street, and extra cost of replacing the pavement properly. It must be conceded by all that the primary and principal use of streets is for highways, and their use for pipes and structures is secondary and incidental. This is fully recognized in the authority over the streets given to the Superintendent, who controls their opening, — under the proper legal limitations, — for any purpose whatever; moreover, the difficulty of making excavations will obviously lead to the more careful construction of buried structures, and to the invention of methods of using them without removing the paving. As an instance, note that until within a very few years it was necessary to make an excavation in the street every time the city water was turned on or off a customer's premises.

The third objection to the concrete foundation is that it makes a water-tight layer, covering the street, and graded so as to turn all the water that penetrates the layer of paving-

block to the gutters. In streets having areas under the sidewalks, this is liable to make trouble from the water leaking through the wall and showing itself in the area. Care has been taken to make a water-tight joint in such cases.

The filling of the joints of the paving-stones with heated pebbles and pitch has been successful, and has done away with leaving a layer of gravel on the stones to be ground up by teams, and to become a nuisance to the public. The method of filling the joints promptly and effectually with pebbles and pitch avoids the long and dirty process of grinding up gravel by teams, and allows the street to be cleaned at once. Paving has been injured by the removal of gravel before the joints were filled, and also by water-carts sprinkling the layer of gravel. The sprinkling seems to prevent the ground-up gravel from penetrating the joints by caking in the upper part of the joint. All gravel used for covering off paving, as it is termed, should be thoroughly dry when applied, either naturally or artificially.

Better work can be done in the hot, dry weather of summer than in the shorter and cooler days of the fall. This is especially true of all pitch joint-work. It cannot be properly done when the stones are wet, or so cold as to chill the pitch at once to so low a temperature that it loses its waxy consistency. It would probably be an improvement to use more fluid pitch than has been done heretofore.

About two-thirds of the cost of paving is in the granite blocks, and the aggregate cost for the year is very large. In cases where it is practicable, say for Quincy stone delivered on the ground, stone might be bought by the square yard of finished paving, instead of by the tedious and unsatisfactory method of counting. Paving-stones bought by contract vary in size so that the cost to the city for two consecutive areas of paving will frequently vary from six to twelve per cent. This has been shown by actual count of sections laid from day to day.

The asphalt pavement which has been laid has all been done by the Barber Asphalt Paving Company.

The practice of rolling the road-bed before placing gravel on streets to be paved gives satisfactory results.

The printed specifications for paving, while more rigid in many points than the former practice of the Paving Division, on the whole are very satisfactory, and but few changes in the subject-matter will be necessitated.

In commencing the work of street-paving, a force of engineers was organized, consisting of two field-parties and an office assistant — twelve men in all during the busy season.

Plans and profiles of streets to be paved were made, quan-

ties estimated, general specifications previously prepared were filled out for letting the work by public competition. The large amount of work to be done, together with its character, necessitated the letting of the paving of a number of streets by contract.

The city furnished all materials except paving-gravel, which was furnished by the contractor, and the price included in the bid. In most cases material furnished by the city was delivered to the contractor on wharves or at city yards. In some cases, paving-blocks were delivered on or in the vicinity of the work under existing contracts, old material removed was delivered by the contractor at some convenient point where the city had use for it; if of no use to the city, it was given to the contractor.

Seventeen contracts were let, covering 4.35 miles of street, and costing, exclusive of material furnished by the city, \$169,161.02.

Fifty-three thousand four hundred and forty-four square yards block paving on gravel were laid; average cost, \$1.155.

Nine thousand two hundred and ninety-four square yards block paving on concrete base with pitched joints were laid; average cost, \$2.727.

Fifteen thousand one hundred and eighty-nine square yards of asphalt paving were laid; average cost, with concrete base, \$3.635 (when old base was used, \$2.25).

Thirty-one thousand six hundred and forty-six linear feet of edgestone set; cost on average, \$0.329.

Twenty-two thousand four hundred and seventeen square yards of sidewalk relaid; average cost, \$0.836.

Three thousand and seventy-eight square yards flagging cross-walk; average cost, \$1.184.

The number of blocks used cannot be exactly given, as they were taken from stock in most cases. Counts of small areas proved very unsatisfactory; averaging the largest quantities where exact figures are obtainable gives about twenty-five large and about thirty-eight small blocks to the square yard. The cost of blocks, including culling and wharfage, is about five cents for small blocks and seven and one-half cents for a large one, making the cost per yard \$1.90 in each case. The small blocks come from Quincy, and are used on inland work, and are delivered on the work. The large blocks come mostly from Cape Ann, and are delivered on wharves.

The average cost of block paving on gravel, per yard, is \$3.05; this, under somewhat severe specifications, requiring the removal of thirteen inches of old material, grading and rolling the road-bed, and furnishing six inches of new gravel.

Details of the work done are to be found in the appendix.

The past year has been one of the busiest ever known in the history of the Street Department.

The following table shows the amount of work done on paving, edgestones, sidewalks, etc., in 1889, 1890, and 1891 :

	1889.	1890.	1891.
<b>Granite blocks laid and relaid :</b>			
Regular appropriation . . . . .	55,922 sq. yds.	49,630.8 sq. yds.	43,951 sq. yds.
Special appropriation . . . . .	43,673 sq. yds.	21,832.8 sq. yds.	153,639 sq. yds.
<b>Edgestone set and reset :</b>			
Regular appropriation . . . . .	60,275 lin. ft.	42,437 lin. ft.	46,237 lin. ft.
Special appropriation . . . . .	38,077 lin. ft.	8,567 lin. ft.	147,215 lin. ft.
<b>Brick walks laid and relaid :</b>			
Regular appropriation . . . . .	19,368 sq. yds.	15,448 sq. yds.	29,239 sq. yds.
Special appropriation . . . . .	16,512 sq. yds.	6,758 sq. yds.	73,336 sq. yds.
<b>Flagging set and reset :</b>			
Regular appropriation . . . . .	10,879 ft.	15,640 ft.	21,134 ft.
Special appropriation . . . . .	2,716 ft.	2,759 ft.	16,940 ft.
<b>Asphalt :</b>			
Regular appropriation . . . . .	3,806 sq. yds.	1,369 sq. yds.	1,731 sq. yds.
Special appropriation . . . . .	2,892 sq. yds.	2,317.6 sq. yds.	39,955 sq. yds.
<b>Hill gravel :</b>			
Regular appropriation . . . . .	\$46,866 01	\$32,205 34	\$53,443 87
Special appropriation . . . . .	18,197 79	9,727 95	39,707 64
<b>Hill sand :</b>			
Regular appropriation . . . . .	3,572 83	6,024 85	8,875 1
Special appropriation . . . . .	3,516 00	475 46	2,528 23
<b>Filling :</b>			
Regular appropriation . . . . .	8,623 55	2,110 36	2,333 60
Special appropriation . . . . .	6,176 67	27,926 03	9,231 25
<b>Stone :</b>			
Regular appropriation . . . . .	29,189 20	21,097 34	72,938 04
Special appropriation . . . . .	5,157 53	2,747 44	35,926 87
<b>Beach gravel :</b>			
Regular appropriation . . . . .	7,168 95	5,160 87	9,460 61
Special appropriation . . . . .	1,206 95	1,133 01	7,134 20
Grade damage, etc. . . . .	19,065 21	23,383 11	25,633 65
Watering streets . . . . .	47,586 58	57,967 34	104,263 62
General repairs . . . . .	234,585 91	200,079 67	249,845 70

	1889.	1890.	1891.
Expended from Jan. 1, 1880, to Dec. 31, 1889 and 1890, and expended from Jan. 1, 1891, to Jan. 31, 1892:			
Regular appropriation . . . . .	\$760,388 61	\$806,995 21	\$977,210 02
Special appropriation . . . . .	291,071 57	254,727 19	1,014,324 28
Pay-rolls Jan. 1, 1889, to Dec. 31, 1889 and 1890; Jan. 1, 1891, to Jan. 31, 1892:			
Regular appropriation . . . . .	330,599 97	340,789 36	396,282 93
Special appropriation . . . . .	97,634 30	123,554 96	171,769 05
Balance, Jan. 1, 1889-1890; Feb. 1, 1892:			
Regular appropriation . . . . .	8,265 11	36,291 97	483 71
Special appropriation . . . . .	3,118 98	205,105 73	206,622 18

As a matter of interest to the residents in the different sections of the city, the following tables are presented, showing the amount of work done on edgestones and sidewalks in the different districts, one-half the cost of which is assessable on the abutters:

### New Edgestone. (Lin. ft. set.)

YEAR.	City Proper.	Roxbury.	South Boston.	East Boston.	Dorchester.	West Roxbury.	Brighton.	Charlestown.	Total.
1881 . . . . .	6,294	8,328	6,304	443	13,112	1,314	263	794	36,852
1882 . . . . .	3,398	19,930	4,190	2,119	8,235	5,454	5,543	1,595	41,464
1883 . . . . .	2,763	7,306	4,660	98	2,467	4,381	1,895	. . . .	23,570
1884 . . . . .	4,601	9,733	6,189	2,450	18,310	4,610	106	696	46,785
1885 . . . . .	5,291	4,644	2,638	1,333	4,976	1,952	303	546	21,583
1886 . . . . .	5,790	8,978	2,463	349	11,061	2,451	737	174	31,993
1887 . . . . .	3,222	10,192	4,269	436	5,229	2,726	2,055	223	28,352
1888 . . . . .	4,359	5,191	4,531	971	5,061	580	867	. . . .	21,550
1889 . . . . .	2,946	13,224	2,189	1,419	6,794	10,404	1,845	573	39,344
1890 . . . . .	2,781	11,475	4,946	981	9,882	3,288	3,042	988	37,383
1891 . . . . .	8,236	22,693	11,724	4,131	18,138	4,617	2,032	2,227	73,798
Total . . .	49,771	112,694	53,953	14,730	103,245	41,777	18,688	7,816	402,674

**Brick Sidewalks. (Sq. yds. set.)**

YEAR.	City Proper.	Roxbury.	South Boston.	East Boston.	Dorchester.	West Roxbury.	Brighton.	Charlestown.	Total.
1881 . . . .	5,207	11,401	3,961	893	337	1,096	381	159	23,525
1882 . . . .	5,906	7,510	4,984	1,658	179	1,534	117	887	23,074
1883 . . . .	4,392	7,075	4,794	1,095	2,795	3,354	177		24,323
1884 . . . .	4,870	7,279	4,437	1,616	4,902	964	739		24,797
1885 . . . .	4,756	3,896	1,473	722	892	479	46	342	12,006
1886 . . . .	5,273	5,235	2,112	1,002	2,843	58		527	17 100
1887 . . . .	5,970	7,093	3,768	1,500	1,348	643	56		20,973
1888 . . . .	2,540	6,910	3,164	1,110	614	346	75		14,759
1889 . . . .	4,836	10,489	1,942	1,362	638	124	138		19,523
1890 . . . .	4,913	7,651	1,915	1,947	1,155	274	900	791	19,546
1891 . . . .	3,881	9,096	3,623	2,176	1,478	967	377	120	21,725
Total . . .	52,543	84,977	36,178	15,081	17,181	10,071	2,017	3,873	221,920

The cost to the city of Boston of laying the edgestones and brick sidewalks, shown in the foregoing table, has been \$581,230.21.

Of this amount the sum of \$269,677.56 has been assessed on the abutters when the edgestone and sidewalk have been laid.

Of this sum of \$269,677.56, the sum of \$10,810.48 was abated by order of the Board of Aldermen, \$218,942.62 has been collected, and \$39,924.46 is still uncollected.

**STREET-WATERING.**

The most unsatisfactory work which the Street Department had to do during the year was that of street-watering. This arises from the fact that there has never been any system in regard to this work. Until Dec. 13, 1891, the duty of watering was not a part of the work of the Street Department, as the subject was not mentioned in the ordinances. Recognizing, however, the importance of watering streets, both for the preservation of their surface and the preservation of the public health, it has been the practice of every superintendent of the department to devote as much money to this work as possible. As this money was not

especially appropriated by the City Government for this purpose, but was taken out of the regular maintenance appropriation of the department, the sum expended and the amount of work done varied largely from year to year. The following table shows the amount expended in street-watering by the city for the last fifteen years :

1877 . . . \$17,593 62	1885 . . . \$43,854 68
1878 . . . 23,595 02	1886 . . . 44,940 35
1879 . . . 26,747 18	1887 . . . 51,365 73
1880 . . . 33,306 95	1888 . . . 40,586 58
1881 . . . 36,178 24	1889 . . . 47,837 46
1882 . . . 45,797 00	1890 . . . 57,967 34
1883 . . . 53,502 29	1891 . . . 104,263 62
1884 . . . 34,518 47	

As the cost of watering all the streets of the city was largely in excess of the amount which the Street Department was able to devote to the purpose, and of necessity a large number of streets were entirely neglected, the custom arose of the department's expending the money for street-watering on important macadamized thoroughfares and a few other streets which it was deemed of special importance to water, leaving it to private parties who were willing to pay, to obtain from contractors the watering of the streets in front of their residences.

This method has caused a great deal of complaint from residents who were obliged to pay for street-watering, as frequently an adjacent street was watered at the city's expense.

Another source of complaint was the exorbitant rate charged by the contractors where the work was done at the expense of the abutters. As it was impossible to ascertain what proportion of people subscribed for watering on a given street, the contractor set a price which would allow for the expense being borne by such people as were liberally inclined. This price, in some instances, is known to be about seven times the actual cost of watering; yet the contractor claimed that the sum he demanded was made necessary by the fact that a great many people would not subscribe for the work; that frequently those who subscribed failed to pay, and that the total amount collected by him barely returned a fair profit on the capital and plant employed.

The growing discontent concerning this system made itself manifest in the press in the spring of 1891, and several articles were published concerning the exorbitant rates



which people were obliged to pay to street-watering contractors. This agitation resulted in bringing the matter to the attention of the authorities, and led to an examination of the subject.

It is found that in all the large cities outside of Boston, the idea of local benefit as to street-watering largely prevails, and in most cases the abutters are expected to pay the expense thereof in front of their several estates. Several considerations have gradually taken the subject from the category of private enterprise and established it under municipal control.

1st. The importance of keeping the street-surface in good sanitary condition.

2d. The importance of having the amount of water used on the street, under control.

3d. The question of general accommodation to public traffic as far as ease and comfort are concerned.

4th. The impossibility of contractors procuring complete and uniform subscriptions on a given route where the watering is done at the expense of the abutters.

These, together with numerous other considerations, have led to the enactment by the Legislature of a State law whereby any city is authorized to water its streets, and to levy a tax or assessment for the expense thereof against the abutters, in the same manner as for building sewers or laying edgestones and sidewalks; or to do the whole of the work at its own expense, including it in the tax rate.

Chapter 179 of the Acts and Resolves of 1891, which was passed late in the spring, reads as follows:

"SECTION 1. Any city, the population of which exceeds thirty thousand, . . . may annually appropriate money to water all or any of the public streets within its limits, or it may determine that such streets shall be watered in whole or in part at the expense of the abutters thereon. . . .

"SECT. 2. If a city shall determine that the streets within its limits, or certain streets or portions of streets therein, shall be watered in whole or in part at the expense of the abutters, the expense of such watering shall be assessed upon the estates abutting on such street or portion of such street in proportion to the number of linear feet of each estate upon such street or portion thereof so watered."

No advantage was taken of this law last year, for the following reasons:

1st. Under the \$9 tax limit, it was impossible to devote from the amount raised by the tax levy the large sum required to water the streets.

2d. The lateness of the season prevented any plan being

formed whereby the cost of watering should be assessed on the abutters. The delays that would have occurred in forming such a plan would have postponed street-watering for some time, and brought great inconvenience upon the residents of the city.

The City Government recognizing the importance of the subject, appropriated the sum of \$50,000 for the purpose of street-watering; which, taken in connection with the sum of \$54,000 which could be spared from the regular maintenance appropriation of the department, gave a much larger sum than ever was before devoted to this purpose.

This sum, although a large amount for the city to appropriate, was entirely inadequate to do all the street-watering required, and the practice of former years had to be continued, of the city's refusing to water paved streets and those streets which were thickly settled and on which the residents were amply able to pay for the work themselves. The sum of \$104,000 was therefore largely expended in the suburbs and on the main thoroughfares leading to them.

As no systematic method had ever been followed out in doing this work, and no data existed to show on what basis the work had previously been paid for, the labor of looking into the numerous watering contracts, with a view of equalizing the prices, was very great. All prices paid for new work and former prices paid for old work were adjusted on the basis that a water-cart should cover from 27,000 to 30,000 linear feet of single spread per day. In laying out new street-watering routes and adjusting old ones, the length and width of streets to be covered were carefully determined, and the number of spreads necessary to cover from curb to curb were taken into account in regulating the price to be paid.

The following table gives a summary of the work done by teams hired by the day and teams owned by the city, classified by districts, with the number of miles covered in each district :

1891.

**Summary of Day Work.**

DISTRICTS.	Number of teams hired by the day.	Number of teams owned by the city.	Number miles covered.
1. South Boston .....	6	.....	20.42
2. East Boston .....	3	.....	6.74
3. Charlestown .....	3	.....	5.99
4. Brighton .....	10	2	21.74
5. West Roxbury .....	8	2	30.77
6. Dorchester .....	10	2	34.38
7. Roxbury .....	7	.....	17.47
8. South yard .....	3	.....	6.16
9. Back Bay .....	4	.....	5.57
10. North End .....	1	.....	2.62
Totals .....	55	6	151.86

The summary shows that fifty-five carts hired by the day and six carts owned by the city have watered 151.86 miles of streets during the year.

The following table, classified by districts, shows the length in miles, and the square yards of surface, watered by the various street-watering contractors during the year.

The expense of this work was borne entirely by the city in some districts, in others entirely by the abutters, and in the remainder partly by the city and partly by the abutters.

1891.

## Summary of Contract Work.

DISTRICT.	Contractor.	Miles.	Square yards.
City Proper .....	Daniel Clark .....	4.55	87,268
“ .....	O. Nute & Son.....	19.34	495,910
“ .....	Proctor Bros. & Billings,	12.70	263,641
West End.....	A. J. Tuttle & Co. ....	4.78	91,272
South End .....	J. L. & H. K. Potter ....	10.83	235,254
East Boston .....	Philip Sowden, Jr.....	8.04	160,811
Charlestown .....	Wm. H. Quigley... ..	3.00	68,325
“ .....	E. Devine.....	3.20	60,834
“ .....	P. J. Calnan.....	3.32	55,644
Dorchester .....	William Hannon.....	3.14	60,229
“ .....	Ashmont Improvement Co.	1.54	26,575
Dorchester, South Bos- ton, and Roxbury ...	A. A. Hall .....	21.47	418,795
Roxbury .....	M. E. Nawn.....	5.64	101,769
“ .....	Bancroft .....	.80	26,633
“ .....	T. W. Manning .....	3.36	69,700
“ .....	William Finneran.....	3.70	87,487
“ .....	E. A. Janse .....	1.48	31,700
West Roxbury .....	Patrick Ward .....	3.80	58,383
“ .....	Thomas Minton .....	3.29	66,699
“ .....	John S. Kelly .....	2.27	34,762
“ .....	Thomas O'Leary.....	10.87	189,408
Totals .....	.....	181.07	2,691,099

**Distribution of Carts.**

No.	Districts.	City carts.	Hired carts.	Contractors' carts.	Total.	Miles.
1	South Boston...	.....	6	3	9	24.92
2	East Boston ....	.....	8	5	8	14.78
3	Charlestown....	.....	3	6	9	15.51
4	Brighton .....	2	10	.....	12	21.74
5	West Roxbury..	2	9	7	18	51.00
6	Dorchester .....	2	10	5	17	43.33
7	Roxbury .. ....	.....	7	14	21	45.15
8	City Proper ....	.....	7	51	58	66.50
		6	55	91	152	282.93

## STREET DEPARTMENT.

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## Money Expended, 1891.

No.	Districts.	City work.	Contractors' work.	Day work.	Labor.	Water for 1891.	Water for 1890.	Repair.	Horse-hire.	Total.
1	South Boston .....	.....	\$1,385 42	\$3,562 00	\$306 02	\$593 56	\$309 28	\$5 75	.....	\$5,568 47
2	East Boston .....	.....	3,379 33	2,115 00	5 06	352 40	201 48	.....	.....	5,700 87
3	Charlestown .....	.....	4,090 01	2,143 50	325 48	357 16	128 08	.....	.....	6,627 07
4	Brighton .....	\$1,971 00	.....	8,032 50	311 84	1,666 81	1,749 22	164 00	.....	12,228 56
5	West Roxbury .....	1,728 00	6,594 96	5,724 00	434 36	1,241 63	1,350 06	45 00	.....	15,879 38
6	Dorchester .....	750 00	5,487 32	5,835 00	674 54	1,097 20	1,659 79	.....	.....	14,406 65
7	Roxbury .....	45 00	7,254 13	4,918 00	1,058 73	826 94	898 69	13 30	.....	14,182 85
8	South yard.....									
9	Back Bay .....									
10	North yard .....									
	Total .....	\$4,494 00	\$40,952 24	\$38,718 00	\$4,845 85	\$7,200 00	\$7,144 60	\$530 55	\$378 38	\$104,263 62

1891.

No.	Districts.	Miles, day work.	Miles, contract work.	Total.
1	South Boston...	20.42	4.5	24.92
2	East Boston....	6.74	8.04	14.78
3	Charlestown....	5.99	9.52	15.51
4	Brighton .....	21.74	.....	21.74
5	West Roxbury..	30.77	20.23	51.00
6	Dorchester .....	34.38	8.95	43.33
7	Roxbury .....	17.47	27.68	45.15
8	South yard .....	6.16	52.15	66.50
9	Back Bay .....	5.57		
10	North yard .....	2.62		
		151.86	181.07	282.93
		or	or	
		2,000,000 sq. yds.	2,692,000 sq. yds.	

Cost of city and day work, exclusive of supervision . . . . . \$332 00 per mile  
 Cost of contract work, exclusive of supervision . . . . . 312 44 " "

Entire cost of city and day work per 1,000 sq. yds. =  
 \$23.17 per season, exclusive of water.

Cost to city of contract work, which was paid for also by the abutters, per 1,000 sq. yds. = \$16.38 per season, exclusive of water.

In comparing the cost of the "contract work" with the cost of the day work done by the city, it must be borne in mind that the cost of the contract work as stated is the amount which the city has paid the contractors, and that an unknown amount has been paid several contractors by the abutters on the streets. Of the 91 contract carts, the city pays for only about 48 carts, while the other 43 collect entirely from the abutters.

## Monthly Exhibit Sheet. (Average large month.)

DISTRICT.	Number of carts used by contractors.	Amounts of money paid monthly to contractors.	Number of carts hired by the day.	Amount paid carts hired by the day.	Number of carts owned by city.	Cost of carts owned by the city.	Total monthly expenditure.	Number loads of water used.	Cost of water used.	Total cost of watering.
South Boston,	8	\$197 83	6	\$900 00	..	...	\$1,097 83	1,763	\$140 24	\$1,237 57
East Boston .	8	550 00	8	450 00	..	...	1,000 00	798½	63 46	1,063 46
Charlestown .	6	700 00	8	450 00	..	...	1,150 00	867½	66 41	1,219 41
Brighton . . .	..	..	10	1,500 00	2	\$300 00	1,800 00	4,051	324 08	2,124 08
West Roxbury,	7	1,075 89	8	1,200 00	2	300 00	2,575 89	3,088	247 04	2,822 93
Dorchester . .	5	1,082 50	10	1,500 00	2	300 00	2,882 50	3,234	258 76	3,141 26
Roxbury . .	14	1,901 67	7	1,080 00	..	...	2,951 67	2,133	170 69	3,122 36
City Proper .	51	1,786 44	7	1,050 00	..	...	2,836 44	3,247	259 77	3,096 21
Total . . .	91	\$7,293 83	54	\$8,100 00	6	\$900 00	\$16,293 83	19,168	\$1,533 45	\$17,827 28

The summary of the method pursued this year shows the following classes of work :

- 1st. Work done by city carts.
- 2d. Work done by hired carts at city's expense.
- 3d. Work done by contractors' carts, under contract, at city's expense.
- 4th. Work done by contractors' carts with partial compensation from the city.
- 5th. Work done by contractors at the expense of the abutters.

The work in City Proper was almost entirely of the fifth class.

The summary of the results for this year shows that 6 city carts and 55 carts hired by the day were used, and that contracts were held with 22 different parties, who required 91 watering-carts for the routes which they covered. This makes a total number of carts 152, and as some of these carts held from 1,000 to 1,500 gallons, they were equivalent to 165 carts of 600 gallons each.

The number of miles watered by city and day work is 151.86.

The number of miles watered by contract is 131.07.

With this plant the total number of miles watered has been 282.93. The total expenditure for this work has been



\$104,263.62, and the streets have been watered in dry weather from two to four times per day; of this sum, the amount of the water bill for two years has been included, as the bill for 1890 was paid out of the appropriation for 1891.

As the Street Department was at the expense of watering in front of a large number of public buildings, it seemed just that the department having control of them should pay for the watering of the streets in front of this property.

An arrangement was therefore made with the Superintendent of Public Buildings, whereby the streets in front of several school-houses were watered, at the following rates :

Name.	Rate per month.	Name.	Rate per month.
Allston . . .	\$3 35	Gaston . . .	\$10 00
Adams . . .	5 15	George street . .	3 60
Atherton . . .	1 85	George Putnam . .	2 15
Adams street . .	3 00	Green street . . .	1 10
Andrews . . .	1 25	Haverhill street . .	3 85
Austin . . .	1 15	Howard Grammar . .	3 65
Agassiz . . .	4 25	Howe . . .	1 75
Bowdoin . . .	3 10	High and Latin . .	22 00
Bennett . . .	3 75	Hyde . . .	3 75
Benjamin Pope . .	5 50	High (Charles-	
Bunker Hill Gram-		town) . . .	3 45
mar . . .	4 60	Harvard hill . . .	2 20
Bunker Hill Pri-		Hancock . . .	50
mary . . .	1 60	Hillside . . .	4 50
Cyrus Alger . . .	4 10	High (Elm street,	
Chapman . . .	3 10	W. R.) . . .	4 25
Charles Sumner . .	2 90	High (Dorchester	
Canterbury street .	4 40	avenue) . . .	8 15
Common street . .	65	Harris . . .	9 60
Cushman . . .	2 25	Howard avenue . .	1 65
Chestnut avenue . .	1 20	Harvard . . .	2 50
Clinch . . .	6 10	Hugh O'Brien . .	7 90
Capen . . .	4 25	Heath street . . .	3 00
Dudley . . .	7 40	Joshua Bates . . .	3 25
Dorchester-Everett,	1 50	Lawrence . . .	5 00
Dwight Primary . .	1 60	Lyman . . .	6 25
Drake . . .	4 10	Lewis . . .	5 00
Everett . . .	6 10	Lowell . . .	7 10
Eustis . . .	3 20	Lucretia Crocker . .	5 00
Florence . . .	5 15	Minot Grammar	
Francis street . .	1 50	(new) . . .	2 75
Frothingham . . .	4 00	Martin . . .	9 35
Glen road . . .	2 75	Moulton street . .	85

## STREET DEPARTMENT.

79

Name.	Rate per month.	Name.	Rate per month.
Mead street . .	\$90	Savin Hill avenue .	\$2 65
Mt. Pleasant ave- nue . . . .	75	Thos. N. Hart . .	2 25
Mt. Vernon . .	2 00	Tileston . . . .	5 15
Norcross . . .	4 00	Ticknor . . . .	3 00
Noble . . . .	7 00	Thomas street . .	1 25
Oak square . .	18 35	Vernon street . .	75
Old High (Dor- chester avenue) .	9 75	Wells . . . . .	3 15
Old Minot . . .	1 90	Warren . . . . .	4 50
Prescott . . . .	15	Webster street . .	75
Phillips street .	3 40	Winchell . . . .	2 90
Polk street . . .	1 20	Washington street (near Glen road) .	1 80
Poplar street . .	90	Washington street (near Forest Hills station) . . . .	3 50
Quincy street . .	2 05	Way street . . . .	60
Rice Grammar . .	2 35	Washington street (Germantown) . .	1 90
Roxbury street .	4 25	Yeoman street . .	1 15
Shurtleff Grammar .	5 90		
Sherwin . . . .	6 55		
Stoughton . . .	3 00		
Smith street . .	3 50	Total . . . .	\$362 10

An arrangement was also made with the Fire Department to water in front of the various engine and hook-and-ladder houses, at the following rates :

*Engine-Houses.*

Number.	Rate per month.
13 . . . . .	\$3 75
16 . . . . .	3 00
18 . . . . .	1 00
19 . . . . .	1 25
20 . . . . .	1 25
28 . . . . .	2 50
29 . . . . .	3 50
30 . . . . .	2 25
33 . . . . .	4 10

*Hook and Ladder.*

6 . . . . .	3 00
10 . . . . .	2 50
15 . . . . .	4 25
16 . . . . .	3 25
Total . . . . .	\$35 60

An arrangement was made with the Police Department to water in front of the various police stations, at the following rates :

*Police Stations.*

Number.										Rate per month.
5	.	.	.	.	.	.	.	.	.	\$1 00
8	.	.	.	.	.	.	.	.	.	3 50
9	.	.	.	.	.	.	.	.	.	4 75
10	.	.	.	.	.	.	.	.	.	2 75
11	.	.	.	.	.	.	.	.	.	3 25
12	.	.	.	.	.	.	.	.	.	1 50
13	.	.	.	.	.	.	.	.	.	1 75
14	.	.	.	.	.	.	.	.	.	1 75
15	.	.	.	.	.	.	.	.	.	3 50
16	.	.	.	.	.	.	.	.	.	2 00
Walnut-street Police Station, Neponset										75
Centre-street Police Station, West Roxbury										75
Mattapan Police Station, River street										2 00
Washington street, Ward 24										5 00
Total										<hr/> \$34 25

An ordinance relating to the duties of the Superintendent of Streets became a law on December 13, 1891, and reads as follows :

*"Be it ordained, etc. :*

"Chapter 18 of the Revised Ordinances of the year 1890, as amended by chapter 1 of the ordinances of the year 1891, is hereby amended in the first section by inserting between the words 'repair' and 'shall' in the seventh line the words 'shall keep the streets properly watered.' "

The Superintendent was accordingly requested to include in his annual estimates a sum necessary for this purpose, and the sum of \$250,000 has been reported as meeting the substantial requirements for street-watering for the coming year.

The cost of watering the streets comes strictly under the head of the current expenses of the Street Department, and it is therefore impracticable to borrow money outside of the debt limit for this purpose. Taking into account the great demands for money to be expended on new works of permanent improvement and importance, it is also inadvisable to pay for street-watering by means of a special loan.

The demands of the various city departments always exceed by several million dollars the amount which can be raised under the \$9 tax limit, and there is therefore no hope of obtaining the large additional sum necessary for the expense of street-watering from the money raised in the tax levy.

The question then becomes, How to do away with the present unjust method of paying for street-watering, and at the same time, in view of the financial condition of the city, take the matter entirely under municipal control.

The only solution of this problem is believed to be by a method of local assessment, an ordinance for the authorization of which has been submitted by the department to the City Council, and is now under consideration.

The ordinance as submitted reads as follows :

**" AN ORDINANCE TO PROVIDE FOR WATERING THE PUBLIC STREETS OF THE CITY OF BOSTON, MADE UNDER AUTHORITY OF THE LEGISLATURE, CHAPTER 179 OF THE ACTS OF 1891.**

*" Be it ordained by the City Council of Boston, as follows :*

**" ARTICLE 1.** Chapter 18 of the revised ordinances of 1890, as amended March 2, 1891, is hereby still further amended and extended to read as follows :

**" SECTION 23.** The superintendent of streets is hereby authorized to keep the public streets properly watered, and is directed to do, by contract or otherwise, the work of said watering, in accordance with the following plan : The city is to be divided into such sprinkling districts as the said superintendent shall determine, in each of which shall be specified the streets and parts thereof to be watered, together with the estimated total lengths of streets sprinkled, expressed in miles, and the approximate area between curbs in square yards.

**" SECT. 24.** To enable the superintendent to carry out the provisions of this ordinance, he is hereby authorized to organize a new division to be known as the Street-Watering Division, and to appoint a deputy superintendent thereof, subject to the approval of the mayor, and to employ the inspectors and extra clerical force necessary to carry out the work of the division.

**" SECT. 25.** The cost of the foregoing work shall be paid as follows : The cost of administration shall be wholly borne by the city ; all other expenses for watering, actually incurred in a given district, shall be assessed as a special tax in favor of the city by the superintendent of streets on the

adjoining property fronting on the streets, public places, and parts thereof so watered in said district, in the proportion that the approximate frontage of each lot watered in said district (bordering on the street or public place) bears to the total number of linear feet of all property so watered in the district under consideration. Said special tax-bills shall be made out and certified to the auditor by the superintendent of streets, and by the auditor delivered to the collector of the city of Boston on or before the first day of October in each year, or as soon thereafter as practicable; said special tax shall be and become a lien on the property charged therewith from the said first day of October of the year in which they are issued, and may be collected of the owner of the land in the name of and by the city of Boston like any other claim, in any court of competent jurisdiction, with interest at the rate of six per cent. per annum from the first day of November in each year, and seven per cent. per annum from the first day of November in each year, if unpaid on the first day of January of the following year. If not paid by the first day of April, they shall be transmitted to the corporation counsel for collection by suit or otherwise.

"SECT. 26. All money received by the city from the proceeds of the special tax-bills aforesaid shall be placed to the credit of the street department, for the purpose of defraying the expense of street watering.

"ARTICLE 2. Any other ordinance relating to street watering in conflict herewith is hereby repealed."

This system would return to the city treasury a considerable portion of the sum expended.

In support of the ordinance assessing the cost of street-watering on abutters, the following data is submitted:

Street-watering in most of the large cities of this country is paid for entirely by the abutters, and is treated as a private enterprise.

In others, there is a system of local assessment, the work being done by the city. In order to show the practical working of this system, the following city is cited:

#### *St. Louis.*

The system of street-watering now in vogue in the city of St. Louis is on the local-assessment plan under municipal control, the water being furnished for this purpose free of expense, and each abutter paying a fixed rate per front foot of estate.

There are within the city limits about 272 miles of macadamized streets and 70 miles of paved streets, distrib-

uted as follows: Of Telford, 18.32 miles; wooden block on concrete base, 5.26 miles; granite block, 41.35 miles; asphalt, 3.95 miles; limestone block and old Nicholson wood block, 1.11 miles.

There are also 80 miles of paved alleys. Total, 422 miles of streets and alleys.

Of this total mileage 364 miles are properly sprinkled for the season, for a period of  $8\frac{1}{2}$  months.

The city is divided into 43 sprinkling districts of from 7 to 9 miles each, and the work is let out by contract.

The average length of each district is a little over 8 miles. Average amount paid for each district is \$3,224.

The street-sprinkling superintendent has charge of the work at a salary of \$2,500 per annum, and is assisted by 16 inspectors at a salary of \$1,000 per annum each, with \$20 per month allowance for a horse and buggy.

The total amount of the contracts for

1890 . . . . .	\$138,621.20
The average cost per mile for the season . . . . .	336.93
The average cost per front foot . . . . .	.0353
The city recovered by assessment . . . . .	122,546.62

The paved streets are sprinkled four times daily, and the unimproved and macadamized streets three times daily, Sundays included.

The rate of special tax per front foot for sprinkling has been decreasing each year, it having been as high as \$.0589 in 1888, and \$.0482 in 1889, while for 1890 it is only \$.0353. This reduction may be attributed to more careful supervision and systematic laying out of work.

The assessment plan involves a large amount of clerical work, covering a space of about three months, during which time it is found necessary to employ temporary clerks, involving an expenditure of about \$2,500, whose duty it is to perform the computations and to issue about 61,000 assessment bills.

All expense of administration is paid by the city, but the actual amount of each sprinkling contract is assessed on the abutting property in proportion that its linear feet front bears to the total linear feet of assessable frontage of the whole district in which the contract is made. The rates in the different sprinkling districts only varied in 1889 from \$.0371 to \$.0630 per linear foot, averaging \$.0482.

*Paved streets* are sprinkled twice a day during the months of March, April, and November, and three times a day during the months of May and October, and four times a day during June, July, August, and September.

*The unpaved streets* are sprinkled twice a day during March, April, May, October, and November, and three times a day during June, July, August, and September.

One sprinkling only is required on Sunday, except the Lindell avenue, the principal driveway to the park.

The street commissioner determines whether rain has obviated the necessity of sprinkling, also whether the contractor has given the requisite number of sprinklings and the proper quantity of water, and he can change and regulate the time, if found necessary.

The work in this city has proved more satisfactory and more economical year by year as the system has been perfected.

### *Estimated Cost of Work in Boston.*

In calculating the cost of street-watering in this city, it is necessary to figure on a watering season of eight months, as it is well known that in previous years the watering has been delayed until long after the time when it was needed.

Of our 434 miles of streets, it is estimated that —

1. 47½% are 40 feet wide or less.
2. 47½% are more than 40 and less than 66 feet wide.
3. 5% are more than 66 feet wide.

Thus making 206 miles of 1.

206 " " 2.

22 " " 3.

Of the first class it is thought that there are about 66 miles that will not need watering in any event, on account of their isolation, shade, and other considerations, leaving —

1. 140 miles requiring a single spread.
2. 206 " " a double spread.
3. 22 " " three or more spreads.

65 carts will provide for street requiring a single spread.

130 carts will provide for street requiring a double spread.

25 carts will provide for street requiring three spreads.

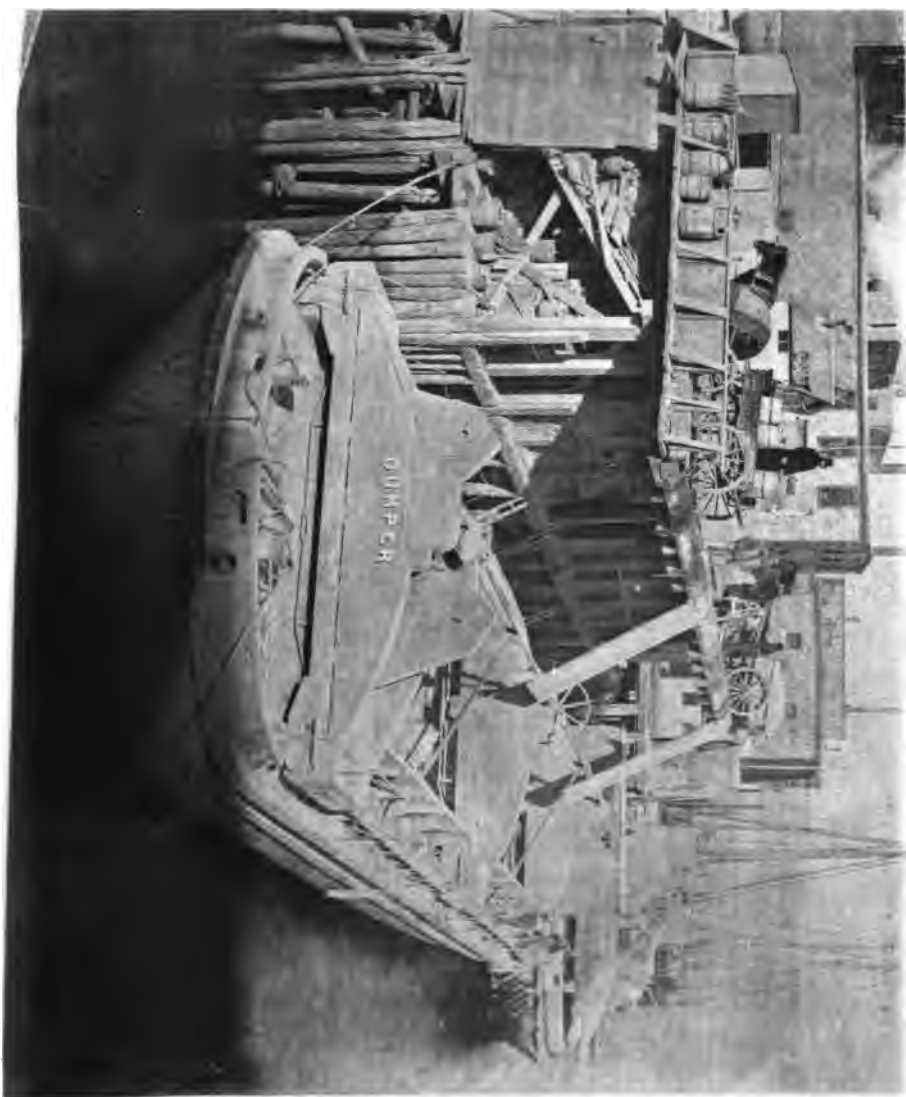
220 carts will provide all that is necessary, which, at

\$1,050 each year, will cost \$231,000, and if we add for supervision and assessment expense . . . \$12,000

Water . . . . . 7,000

The total cost will be . . . . . 250,000

This is the least sum with which the work should be undertaken the first year. In subsequent years the expense per mile would undoubtedly be reduced, owing to more perfect organization and the lower prices to be obtained by competition among contractors.



FORT HILL DUMPING WHARF

HALLOTYPE PRINTING CO. BOSTON





*Water-posts.*

As the amount of work that a water-cart can cover in a day is largely influenced by the distribution of water-posts, the subject was investigated early in the spring and a map made showing the location of all water-posts in existence at that time, and a requisition made on the Water Department to establish new ones at selected points, which was complied with, to the better accomplishment of street-sprinkling.

The whole number in existence May 19, 1891 . . .	228
The number abandoned during 1891 . . . . .	2
The number changed in location during 1891 . . . . .	2
The number established during 1891 . . . . .	45
The whole number now in use . . . . .	271

A large number of new posts will have to be established during the coming season in order to economically cover the territory desired.

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## SANITARY DIVISION.

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In order to obtain more efficiency in the work of cleaning the streets, the Sanitary Police Department, when the consolidation of the departments took place, was divided into the Street-Cleaning Division and the Sanitary Division. The Sanitary Division attends to the removal of house-offal and the removal of house and store dirt.

### REMOVAL OF OFFAL.

The offal of the city is collected by 81 offal-carts (66 of which are owned by the city) and 179 men. Such of the offal as is fresh is taken by the teams to the different yards of the department, and disposed of to farmers, who remove it daily. The offal of Charlestown is taken to the yard at Malden bridge; the offal of East Boston is collected and disposed of by contract; the offal of the City Proper, South Boston, and Dorchester is conveyed to the yard at the South End; the offal of Roxbury and West Roxbury is conveyed to the yard on Highland street; and the offal of Brighton is disposed of by contract. Such of the offal as is decayed is removed to the dump-scow and is towed to sea; the decayed offal thus removed amounts to about three per cent. of the total amount collected.

The subject of the disposal of offal has been considerably discussed during the last year. Complaint was made both

of the method of disposal, by towing the decayed offal to sea, and also of the method of selling the fresh offal to farmers. Complaint concerning the method of dumping it at sea came from neighboring towns on the seashore, where it was alleged that it was deposited on the beaches, to the great inconvenience of the residents. On investigation, it was proved that these complaints were well-founded, as the refuse picked up on the beaches in Swampscott and vicinity undoubtedly came from the city of Boston's dumping-scow. The location of the dumping-place was therefore changed; and instead of using a single dump, as had been the custom in former years, a number of dumps were arranged so that advantage might be taken of the wind to keep the refuse from floating ashore. The accompanying chart shows the different dumping-stations and the manner of using them. Since this change has been made, no complaint from any source has been received, as it is possible to choose a station from which the garbage cannot be blown ashore.

The practice of selling offal to farmers has been criticised during the year on the ground that the swine fed on this material became unhealthy, and that the meat produced and sold in this city must have a bad effect on the health of the community. The city now derives the sum of \$30,000 per year from the sale of this offal; and as there seems to be no other cheap method of disposing of it, and as it is not yet satisfactorily demonstrated that this offal when fresh is unfit to be fed to swine, no other method of disposal has been seriously considered.

The cremation of offal, which has been adopted by some cities, has in almost every case proved a failure. Not only is the method very expensive, costing, as it does, from thirty to sixty cents per ton, but a very serious nuisance is created. This nuisance arises from the fact that it is almost impossible to entirely consume the offal, even at the most intense heat; the foul odors given off during the process of combustion also create an intolerable nuisance in the vicinity of the crematory. Should the time come when the country towns around Boston prohibit the bringing in of offal into their limits, and the city's market for it is thus cut off, recourse can be had to one of two methods, either of which would be entirely satisfactory.

*First.* Towing all offal out to sea and dumping it. The expense of this method of disposal would be about ten cents per ton; and provided that care is taken in selecting proper dumping-stations, so that by no possibility could the offal float ashore, this method would be as satisfactory and economical as any.



DUMPING SCREW LAMORED CORING 18-18-18

HELIOTYPE PRINTING CO., BOSTON.



*Second.* By treating the offal chemically. The city of Providence has adopted a chemical method of treating offal, by which the material, after being collected and removed to the works, is subjected to the action of naphtha. The grease is extracted and sold, and the residue, which comes out of the extractors perfectly dry and odorless, is ground up for a fertilizer. This process is patented, and the inventor offered to erect a plant at the expense of his company in Boston, and treat the offal for the sum of two and one-half cents per head of population, provided he could be assured of a contract for a long term of years. The process, as carried on at Providence, creates no nuisance, and is well adapted to all cities situated where it is impossible to dispose of the garbage at sea.

The abandonment of our present method, and the adoption of either of the above-described methods, means a difference of \$42,000 to the city, as a revenue of \$30,000 per year would be given up, and an increased expenditure of \$12,000 would be necessitated.

Complaints are frequently received concerning the failure of this division promptly to remove ashes or offal. On investigation, it is usually shown that the parties making the complaint are at fault. The regulations of the division require that the ashes and offal must be kept separate, put in suitable receptacles, and so placed as to be convenient of access to the employees of the division. If any of these conditions are violated, the employees have orders to refuse to remove the ashes or offal, until the city regulations are complied with.

The rapid growth of the city has resulted in a greatly increased amount of work done by this division. The following table shows the amount of offal removed for the last ten years :

Year.	Number of loads.
1882 . . . . .	28,385
1883 . . . . .	27,408
1884 . . . . .	28,520
1885 . . . . .	31,206
1886 . . . . .	33,170
1887 . . . . .	36,724
1888 . . . . .	37,709
1889 . . . . .	40,183
1890 . . . . .	40,525
1891 <sup>1</sup> . . . . .	46,742

Each load of offal is equivalent to fifty-seven cubic feet.

<sup>1</sup> From Jan. 1, 1891, to Feb. 1 1892.

The steady increase of the amount of work to be done will require certain additions to the plant of the division, some of which are extremely important, and should be done at once. A new wharf (estimated expense \$60,000) must soon be purchased at the North End, where another dumping-station can be located. A new depot for the disposal of offal must be established in Dorchester, in order to do away with the present long haul to the South End depot.

If any further argument were needed for the establishment of a new dumping-wharf at the North End, the report of the Deputy Superintendent, wherein it is shown that the expense of teaming the ashes and house-dirt to the various dumps on waste land in the vicinity of the city is 60 cents per load, whereas the expense of disposing of the material by towing to sea is only 30 cents per load, should be conclusive. Fifteen thousand loads of ashes and house and store dirt now hauled to Cambridge could be disposed of in this way at an annual saving of \$4,500.

#### BARNEY DUMPING-SCOW.

The offal and refuse now towed to sea is removed in the patent Barney dumping-scows. These scows dump their load in a compact mass, and are the best scows yet devised for the purpose. The load is discharged into the water six feet below the sea level instead of being scattered on the surface, and being thoroughly saturated through absorption, is prepared to sink at once. The city now owns one scow, for which the sum of \$12,000 and a yearly royalty of \$1,500 was paid, and rents another scow at a yearly rental of \$5,475. It would be much more economical to buy the scow we now rent. Two new scows should be purchased, to use in connection with the new dumping-wharf at the North End, the establishment of which was previously recommended.

By obtaining competition this year on the towing of the dumping-scows to sea, a much more favorable rate has been obtained. The former price for towing to the dumping-station was \$29, with an additional allowance of \$6 for night and Sunday work. The rate obtained by the division this year is \$23, with no allowance for night or Sunday work.

In this connection it is recommended that the new tow-boat required for use by the Sewer Division be built at once. This boat, the estimated cost of which is \$20,000, would, in addition to doing the regular work for the Sewer Division, be able to do all towing for the Sanitary Division, and save an annual expenditure of about \$7,500, now paid to the various tow-boat companies.



DUMPING SCOW, UNCLAD AG.

WILLIAMS PRINTING CO. BOSTON





## REMOVAL OF ASHES.

The following table shows the amount of ashes and house and store dirt collected during the last ten years :

Year.	Number of loads.
1882 . . . . .	159,197
1883 . . . . .	169,610
1884 . . . . .	182,642
1885 . . . . .	193,734
1886 . . . . .	209,129
1887 . . . . .	220,186
1888 . . . . .	233,514
1889 . . . . .	227,325
1890 . . . . .	245,730
1891 <sup>1</sup> . . . . .	313,464

Each load of ashes is equivalent to 43 cubic feet.

Comparative statement of number of loads of ashes collected during 16 weeks in winter and 16 weeks in summer :

1889.	Nov. 29 to Dec. 27, inclusive . . .	19,975
	Dec. 28 to Jan. 24, 1890 . . .	20,685
	Jan. 25 to Feb. 21, 1890, inclusive . .	21,193
	Feb. 22 to March 22, 1890, inclusive . .	21,013

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Total number of loads . . . . .	82,866
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1890.	May 3 to May 30, inclusive . . .	19,741
	May 31 to June 27, inclusive . . .	16,765
	June 28 to July 25, inclusive . . .	15,083
	July 26 to Aug. 22, inclusive . . .	13,650

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Total number of loads . . . . .	65,239
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*Summary.*

Winter . . . . .	82,866
Summer . . . . .	65,239
Difference for winter . . . . .	17,627

The above table shows that a steady increase of the number of loads of ashes removed has taken place, owing to the growth of the city. The cost of the removal of ashes is constantly increasing, owing to the filling up of convenient

<sup>1</sup> From Jan. 1, 1891, to Feb. 1, 1892.

dumping-grounds, and the extra expense of teaming the ashes to the remote location of those now in use. The proposed new dumping-wharf at the North End, from whence the ashes of that part of the city could be towed to sea, would reduce the cost of disposing of this material very considerably. The nine-hour law passed in 1891 has largely increased the cost of running the Sanitary Division, as each team loses one trip per day from the number of trips made under the ten-hour law. When the number of trips that a team can make is only five or six, it is seen that the percentage of work lost is a large one.

Suggestions have been made that the ashes and garbage be removed during the night. Considering the fact that the receptacles for both ashes and garbage are kept by householders in locations not accessible to the employees of the division at night, and also taking into account the inadvisability of obliging householders to put the receptacles on the sidewalk, it is difficult to arrange a plan whereby removal at night can be adopted.

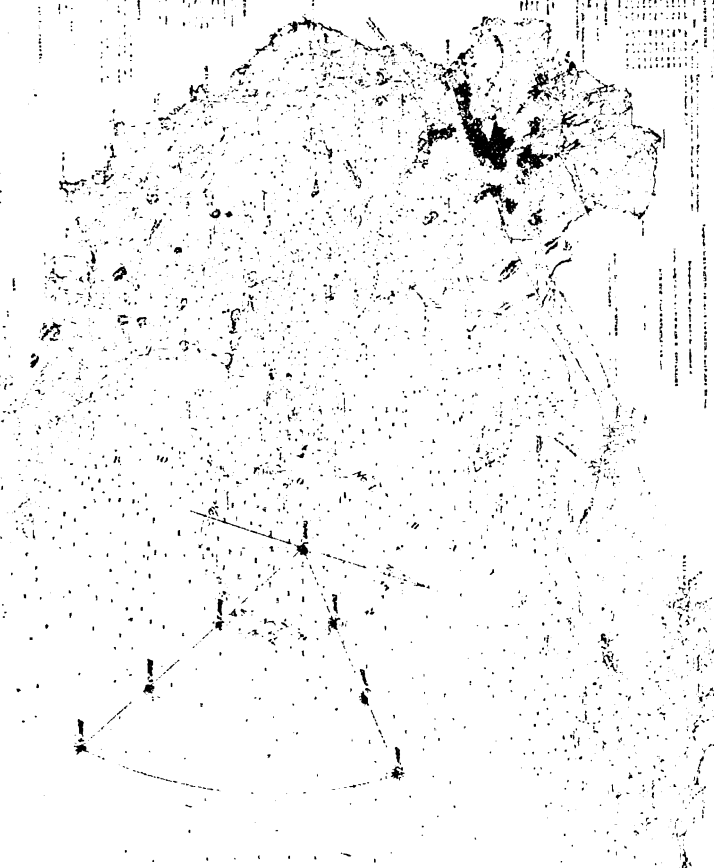
#### TRANSPORTATION OF PRISONERS.

As the Sanitary Division was yearly put to a large expense in the transportation of prisoners from the various city lock-ups to the Court-House, and was obliged to maintain prison vans and horses for this purpose, the matter was looked into, as this duty seemed to be somewhat foreign to the collection of ashes and offal. The practice dated back to the time when the only city department that owned teams was the Health Department, and for that reason the transportation of prisoners had been saddled on to it. A communication from the Corporation Counsel, in answer to an inquiry from this department, showed that this expense should be borne by the County of Suffolk, and arrangements have now been made, whereby the expense of this work is borne by the county.

#### HIRED TEAMS.

The price paid by the Sanitary Police Department in former years to contractors for single teams was \$5.50 per day, which price included an extra man. The department furnished an ash or swill cart, as the case might be, and the contractor furnished two men and a horse to run the cart. As the rate in the other divisions was \$3.00 per day for a teamster, horse, and cart (cart being furnished by the contractor), and as extra labor could be hired for \$2.00 per day, the price of \$5.50 was reduced to \$5.00, to correspond with

COAST GUARD No. 100  
BOSTON BAY  
AND APPROACHES



CITY OF BOSTON.  
STREET DEPARTMENT

Directions for Drifts (Largest) at the various drifting stations  
ACCORDING TO THE DIRECTION OF THE WIND.

No.	Drift Station	Wind.	From S.W. to N.W.	From N.E. to S.W.
1			W.S.W. to S.W.	32.100
2			W.S.W. to S.W.	31.100
3			S.S.W. to S.E.	33.100
4			S.S.E. to E.N.E.	32.000
4072			S.S.E. to E.N.E.	32.000
5			S.N.E. to S.W.	32.000
6			E.N.E. to S.N.E.	32.000

The bearings of these drifting stations are approximately  
as follows:

No.	Drift Station	Bearings
1	Boston Lt. W.S.W. 5.4 miles	Light Rock N.W. by N. N.
2	5 miles	
3	Boston Lt. W. 4.8 miles	Minot's Lt. S. by W. W.
4	3 miles	
5	Boston Lt. W. N. 8 miles	Minot's Lt. S.W. 3 miles
6	Boston Lt. W. by N. 10 miles	Minot's Lt. S.W. by W. W. 6 miles
7	Boston Lt. S.W. by W. 8 miles	Light Rock N.W. by W. N. 8 miles
8	Boston Lt. S.W. by W. 8 miles	Light Rock N.W. by W. N. 8 miles
9	6 miles	
10	Boston Lt. S.W. by W. 8 miles	Light Rock N.W. by W. N. 8 miles
11	6 miles	
12	Boston Lt. S.W. by W. 8 miles	Light Rock N.W. by W. N. 8 miles



the other divisions. A saving of several thousand dollars has resulted from this operation.

#### REFUSE MATERIAL.

The value of the refuse collected by the Sanitary Division and deposited at the different dumps is very considerable. In New York, the privilege of "trimming the scows," or sorting over this refuse, is let by contract for the sum of about \$1,600 per week, thus affording the city a considerable revenue. The city of Boston has never derived any revenue from this source. The explanation that has always been made to account for this fact is, that the residents of New York are more wasteful, and that material which is there thrown into ash-barrels is here saved by the householders and sold by them.

The department this year has investigated this matter more closely, with the result of obtaining an offer of \$200 per week for the privilege of sorting over the dumps. This would not only result in an income of \$10,400 per year (which would probably largely increase as soon as the system was established and competition could be obtained), but would also effect a saving of about \$10,000 on the wages of men now employed by the department on the dumps. The only argument to be advanced against the letting of such a contract is that a number of poor people who now make a living by sorting over this refuse, would be deprived of this method of getting a livelihood. This matter has been referred to the City Council for settlement.

The report of the Deputy Superintendent gives tables showing the cost of the removal of ashes, house and store dirt, and offal, together with the amount of work done. Tables showing the cost of horse-shoeing, cost of feeding horses, and other matters of interest, are also annexed.

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#### SEWER DIVISION.

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The Sewer Division has charge of the following work :

1. The maintenance and construction of all common sewers and catch-basins.
2. The maintenance of the Main Drainage Works.
3. The maintenance of Stony brook.
4. The maintenance and construction of all street culverts.

5. The preparation of plans, and the engineering and supervision required on the construction and maintenance of all work connected with the division.

6. The granting of permits for all connections to be made with the common sewers, and the custody of bonds filed by drain-layers authorized to make such connections.

7. The levying of assessments on estates benefited by the construction of sewers.

The present condition of the common sewers, together with a brief statement of the work done this year and the work to be done in the near future, in order that the efficiency of the sewers may be improved, is shown in the following statement :

#### EAST BOSTON.

Most of the old wooden sewers by which this section was formerly sewered have been replaced by good brick sewers, on a gravel foundation, the mud which formed the foundation of the old sewers having been removed to hardpan and replaced with gravel. The remainder of the defective sewers should be rebuilt as rapidly as appropriations will permit. A number of outlets need to be enlarged and extended, and steps to that end have been taken. The portion of the Orient Heights system, for which an appropriation was made last year, has been more than half completed ; the remainder, which should be built the coming season, consists of 850 feet of brick and 2,000 feet of pipe sewer in Saratoga, Ford, Breed, Gladstone, and Leyden streets.

#### *Work done during 1891.*

Thirteen thousand one hundred and twenty-two linear feet of sewers were built in East Boston during the past year. The amount is about equally divided between brick and pipe sewers. In Bremen, Orleans, Sumner, and Porter streets, 3,369 linear feet of brick sewer were built to replace defective sewers that had been built on a poor foundation. In order to secure a suitable foundation, it was necessary to excavate a considerable depth of mud, and replace the excavation with gravel ; 3,329 linear feet of brick and pipe sewer were built in Bennington, Walley, Leyden, and Gladstone streets. These sewers form a part of the Orient Heights system, and will be connected with the Metropolitan system when the latter is completed. The other sewers built in this district were mostly small branch sewers, and require no special mention.

## CHARLESTOWN.

The Bunker Hill and Vine-street sewer, begun in 1887, has been completed, and a large territory which formerly drained through Polk and Monument streets into Medford street has been diverted down Bunker Hill street so as to relieve the Medford-street sewer. In the vicinity of Arlington avenue and Beacham street, the sewerage is unsatisfactory. Here a separate system of house sewers may be built to connect with the Metropolitan sewer which will be located probably in Alford street. The old sewer can then be connected with surface drains. The sewers in Charlestown, generally, are very defective. A large proportion of the old sewers are the old-fashioned square affairs, with earth bottom, brick sides, laid without mortar, and tops composed of flat stones. They are liable to hold together for years or to break down at any moment; so that it is difficult to say what may or may not be required; but it would be good policy to rebuild them as fast as the money is available. It is next to impossible to clean or flush them, and when they become obstructed, the streets have to be opened to clear them.

*Work done during 1891.*

Two thousand and seventy linear feet of sewers were built in Charlestown during the past year. They consist mostly of small branch sewers, and require no special mention.

## CITY PROPER AND BACK BAY.

Many of the old wooden sewers in the city proper are in very bad condition, and are nearly ready to fall in; notably those in Beverly, Billerica, and Commercial streets. The sewer in Fayette street is badly broken, and should be rebuilt immediately. The district drained by Canal street, and bounded approximately by Causeway, Beverly, Endicott, Hanover, Portland, and Merrimac streets, is in as bad condition, from a sanitary point of view, as can be imagined. Before the intercepting sewers were built there was a continuous low-grade sewer across the city, running through Canal street, Haymarket square, Blackstone, Clinton, Commercial, and Central streets, with a summit near Hanover street, from which the sewage flowed both ways, east and west. The east-side intercepting sewer was low enough to pass under the outlet sewer and intercept the sewage without obstructing it, but the west-side intercepting sewer was so much higher that it dammed up the Canal-street sewer about



three and one-half feet. All that portion of the system west of Hanover street, extending to the boundaries named, has been partly or wholly filled with water and accumulated sewage since 1883. Near the boundaries named, the sewers rise high enough to be partly above the level of the dam formed by the intercepting sewer, but in the centre and at the outlet of the system the sewers are entirely full at all times, so that they cannot be entered, nor can any appliance be used to clean them short of pumping out the entire system. To remedy this trouble, either of two schemes may be followed in dealing with the districts. The first is to rebuild all the sewers at a higher grade, high enough to drain into the intercepting sewer. Each branch sewer would then have to be followed back and rebuilt until a point was reached where the old sewer was higher than the intercepting sewer. It would be of no use to rebuild the main sewer at the higher level, leaving the branch sewers down at the old grade; they would be dammed up just as badly as before. The sewers would all be raised varying amounts, from a few inches to three and one-half feet; therefore most of the house connections would have to be raised also. The whole system would have to be rebuilt at once; if any portion were left, its condition would be just as bad as ever. The surface of the streets would be dug up lengthways by the main sewer, and crossways by the house connections. It would be difficult to estimate the cost of such a job, and the result would be that the whole sewer system would be left several feet higher than it is now, which might prove a poor policy in a business district where cellars are continually being carried deeper. The other scheme is to build a new main sewer across the city from the east-side intercepting sewer, which is about four feet lower than the west-side sewer at opposite points. One advantage of this plan is, that as soon as the proposed new intercepting sewer was built, the branch sewers would immediately drain out into it, and would not have to be rebuilt. Although the branch sewers are built of wood, they have been completely submerged, and are probably sound. They could be rebuilt as the need became apparent, and the money became available. By this latter plan the new sewers would be at about the same grade as the old ones, and the house connections would, therefore, not have to be disturbed.

The total cost of the latter scheme, including rebuilding all the branch sewers, is greater than the former, but the first cost of the latter scheme, inasmuch as it is only necessary to rebuild the main at present, is about \$10,000 less than the former scheme. The line selected for the intercepting sewer

in the latter scheme is longer than is absolutely necessary, but has been selected on account of the bad condition of the sewers in Custom-House square, Central and Commercial streets. These are old wooden sewers, running up and down hill without regular pitch, and holding continually from one to three feet of sewage and mud. The solids of the sewage lodge in the depressions, and remain until a sewer storm moves them along. These sewers should be replaced by smooth, self-cleaning brick sewers. This is all the more necessary for the reason that these sewers receive the sewage of the markets, containing large quantities of animal refuse. A branch could be extended to Dock square, from the main sewer of this scheme, to relieve that locality from floods; 450 feet built in North street, from Blackstone street, would accomplish this. The drainage of the Faneuil Hall markets is, and has always been, in an unsatisfactory and unsanitary condition. The stalls, sinks, refrigerators, etc., drain down into cesspools, where the refuse of meat, fish, and poultry accumulates until the tank is full, when a plug is withdrawn and the whole mass flushed out into the sewers, which are the old wooden ones just described, where it remains decomposing for an indefinite time, until swept away by a heavy rain-storm. The tanks not being large enough for the present requirements of the markets, overflow, filling the space beneath the floor of the basement, and giving notice of the state of things by coming up through the floor. Inasmuch as these basements are much below the level of high tide, they cannot be drained when the sewer system is filled by a rain occurring simultaneously with a high tide. Therefore space must be provided to stow the sewage during a few hours of high tide, until the level of the water in the sewers falls below that of the basement and allows of discharge. An ample storage-chamber, well ventilated and easily accessible, should be built in South Market street, and both markets drained into it by means of a pipe running down the centre of the basement. The present tanks could then be done away with. The storage-chamber should be drained into a self-cleansing sewer in which there is a constant flow, so that the animal refuse may be quickly carried to the Moon Island outlet. If the intercepting sewer across the city be built, as recommended above, it would afford a satisfactory outlet; if not, a pipe sewer should be extended through South Market street to the intercepting sewer in Atlantic avenue. This class of refuse material should not be thrown into such a defective sewer as now exists in Commercial street.

The description of the wooden sewers in the foregoing paragraphs applies to most of the old wooden sewers of the

North End and South Cove districts: they are practically elongated cesspools. A properly constructed sewer carries sewage out of the inhabited portion of a city before decomposition has time to take place. These old sewers fail to do this, but retain the sewage indefinitely. In addition to their defects as carriers of sewage, they have settled and their joints have opened, letting in the water from the tide, which still follows up old stone and pile wharves, which abound all through the filled land of these localities. This water all goes to the intercepting sewers, increasing the burden upon the pumps. The time has come when these sewers should be replaced by tight self-cleansing sewers. In 1888-9 a large sewer was built in Essex and Federal streets and Mt. Washington avenue. The object was to intercept the great amount of sewage and drainage which flowed through Kingston and Beach streets; carry it to tide-water by a new route, so as to isolate the Beach street district from the rest of the sewer system and connect it directly with the intercepting sewer. By this method the district would receive the benefit of the pumps of the Main Drainage Works in the same manner as do the Dover and Dedham street districts. This scheme involved shifting the district regulator from Dover street to a point near Beach street, and building small regulators at the Oswego street and Harvard street connections. The scheme was completed except the building of these three regulators. In order to have the scheme work as designed, these regulators should be built.

Attention has been called in a former report of this department to a sewer in Falmouth and Caledonia streets that is in a dangerous condition. It is a brick sewer built in 1881. Proper precautions were not taken to procure a foundation, and subsequent filling, to raise the grade of the street, caused a settlement of two feet or more in the sewer. Quite a large territory is dependent upon it for drainage, and about 360 feet of it should be rebuilt immediately, before it falls to pieces and causes trouble in the vicinity.

The tract of land just laid out by the Board of Survey bounded by the Back Bay Fens and the B. & A. R.R., also that lying between Charlesgate West and Brookline avenue, the B. & A. R.R. and Charles river, and also the new Commonwealth avenue and vicinity, from the "fork in the roads" to the bridge at Cottage Farm station, are particularly adapted to a separate system of sewerage. The proximity of the Charles River, together with the watercourses through the Fens and the covered channel of Muddy River, afford chances for short, cheap lines of surface drainage, and

the probability that these districts will be covered with the finest buildings in the city, renders it necessary that they should be ensured as far as is possible against the flooding of their cellars. This can be done by a system of house sewers (separate from the surface drains), taking nothing but the house sewage and as much of the roof water as cannot be otherwise disposed of, and large enough to afford storage room for an hour or two. This system should be connected with the Metropolitan sewer, and guarded against the engorgement of that sewer by having regulators at every connection.

The unusual width of these avenues has led to the proposed adoption of the plan of building a sewer on each side of the street instead of one in the middle. Two sewers, while increasing the first cost, will not double it, and will be a saving to the city in preserving a good paved or macadamized surface for a number of years, as well as benefit the abutters by reducing the length of their drain connections.

In the area bounded by St. Mary's street and two branches of the B. & A. R.R. the same system is desirable. A beginning of a sewer system has been built here on the old plan of the sewer in the middle of the street; but it would not cost much to change to the other system, if the change were determined upon now. The Villa street district, so called, bounded by Huntington and Brookline avenues, Francis street and the park, can be served in the same way, with a double system of separate sewers. This plan of double sewers, one on each side of the street, will have to be followed extensively in the future on the new, wide main avenue, if there are to be any restrictions made as to opening the streets.

#### *Work done during 1891.*

Six thousand eight hundred and twenty-two linear feet of sewers were built in City Proper and Back Bay during the past year. Sewers were built in portions of Oak, Tyler, and Kingston streets to replace old and defective ones. On account of an insufficient appropriation the rebuilding in Oak street could not be carried beyond Hudson street. That portion of the old sewer between Hudson and Curve streets is in very bad condition, and should be rebuilt the coming season. There has been a long-felt need of improvement in the surface drainage of the lower part of Tremont street. The fact of there being no sewer in that portion of the street opposite the Common, explains why the trouble was not sooner remedied. Prior to laying the new pavement in Tremont street last fall, the necessary catch-basins,

with 625 linear feet of surface drain for outlets, were built. The improvement in the condition of the street during a heavy rain is very marked. Six hundred and fifty-two linear feet of surface drain has been laid in State street, between Atlantic avenue and Commercial street, affording great relief from surface water in this locality.

The sewers built in Commonwealth avenue, Beacon and Rawley streets, the past season, are a part of a separate system for this vicinity. They connect with the sewer in Brookline avenue, which, at the present time, is being connected with the Charles River Valley Metropolitan Sewer.

The other sewers built in these districts require no special mention.

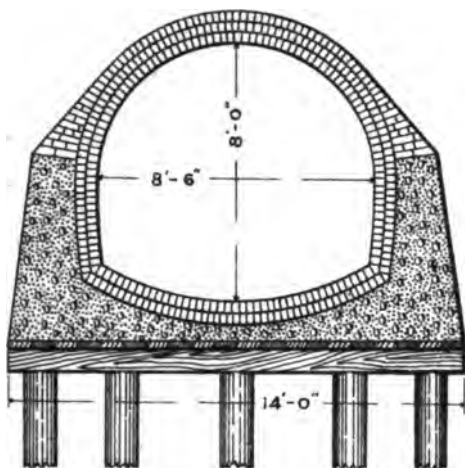
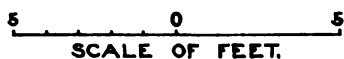
#### SOUTH BOSTON.

There are many wooden sewers in South Boston, some of which are on the point of caving in. These sewers have rotted rapidly since tide-water was excluded from them by the building of tide-gates, etc., necessitated by their connection with the Main Drainage Works, and should be rebuilt without further delay. The districts about First and D streets which suffered from floods due to insufficient outlets for storm water will be provided for by the large storm overflow now building on the extension of D street. The outlets for the sewer system at B and Seventh streets, and also at D street and Dorchester avenue, on the west side of the peninsula, are in a bad condition, being of insufficient size, and choked up by the filling constantly going on around the South Bay. The D street sewer from Dorchester avenue to Ninth street, though built only a few years ago, is badly settled and should be rebuilt. A comprehensive plan has been prepared for uniting the two outlets named above, into one at B and Seventh streets, through the O. C. R.R. freight yard. This sewer is to be built on the same line as the old one, which is too small and is badly broken and settled. This plan also includes rebuilding the D street sewer, and provides for sewerage the depressed portion of D street under the O. C. R.R., where there has been so much trouble in past years. If this plan were carried out it would put the sewer system of that part of South Boston in very good condition. Much of the complaint from that section is due, not to any defect in the sewer where the trouble manifests itself, but to the sewage being dammed up by insufficient outlets.

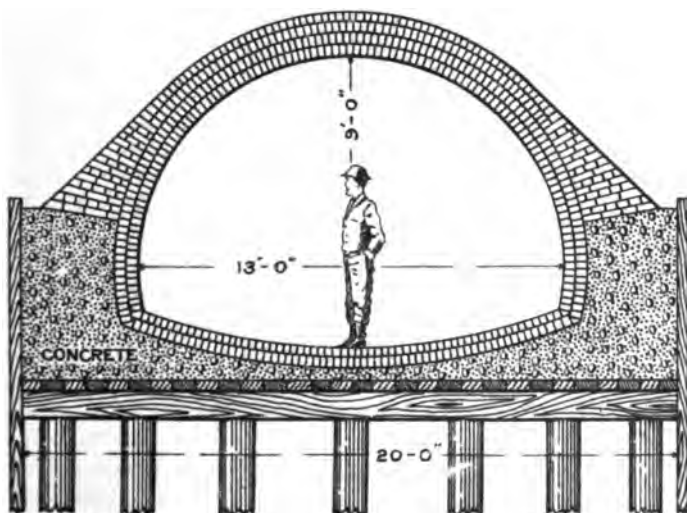
The South Boston system of intercepting sewers is now completed, but is not as yet provided with a suitable overflow. One has been projected on the side of the old Kemp

# DORCHESTER BROOK SEWER.

FEBRUARY 1892.



SECTION OF 8'-6" x 8'-0" SEWER.



SECTION OF 13'-0" x 9'-0" SEWER.



street sewer, which is now not in use. This should be rebuilt large enough at the same time to afford an outlet for the storm water from the district bounded by Preble and Mt. Vernon streets, Dorchester avenue and the water-front. This district could then be sewered with a separate system.

*Work done during 1891.*

Two thousand six hundred and forty-eight linear feet of sewers were built in South Boston during the past year. They consist of small branch sewers, with the exception of the D and Anchor streets overflow, which is an extension of the D and First streets overflow, necessitated by the filling in of the "flats."

ROXBURY.

Most of the sewer building in Roxbury will consist of simple extensions of the old system, where new streets are laid out, and the rebuilding of some defective sewers. The exceptions to the above are in a few localities where peculiar systems are called for. One of these is the section adjacent to the Back Bay, which will be considered under that head. The sewers in Hallock and Ward streets are in very bad condition and should be rebuilt. The Harrison avenue sewer, from Northampton street to Eustis street, is so much settled that it cannot be cleaned; it also should be rebuilt. There are other districts in which, although the sewers are in a fair condition, they are not low enough to afford proper drainage to the cellars. The best plan in these cases, where an intercepting sewer is within reach, is to devote the old system of sewers to surface drainage, and build a new system of separate sewers at a lower grade to drain the cellars, and connect with the interceptor. Such a scheme has been devised for the district between Hammond and Lenox streets, and the money for it has been provided in the last loan. Another district where a similar scheme should be carried out, is that bounded by Camden, Tremont, and Culvert streets and the Providence R.R. Provision has been made in the Loan Order for this object, but the scheme can best be worked up in connection with the extension of Columbus avenue.

Provision has been made in the Loan Order for continuing the work on Dorchester Brook sewer. This will be pushed during the coming year, as the sewerage of the district around Shirley street and Norfolk avenue, for which there is a great demand, depends upon its completion. The area bounded by Gerard, Swett, and Magazine streets and



Norfolk avenue is also in a bad sanitary condition, and would be a favorable location for a separate system of sewerage. If a sum could be obtained sufficient to sewer the whole of the territory at once, some such scheme could be carried out; otherwise the sewers will probably be an extension of the ordinary combined system.

*Work done during 1891.*

Six thousand eight hundred and sixty-seven linear feet of sewers were built in Roxbury during the past year. They were simple extensions or small branches. Work on the large Dorchester Brook sewer, near East Chester Park, was stopped during the summer on account of the exhaustion of the loan made for that purpose. The sewer was built far enough, however, to intercept the Clapp street sewer, so that even in its present condition it affords more relief to that district than it has ever before received. Work will be started here as early as possible in the spring. There is a large section needing sewers in this vicinity that is dependent on this sewer for an outlet.

DORCHESTER.

Dorchester, like West Roxbury, may be divided into two sections, — the northern half, in which the sewer building consists merely of small extensions of a system already well developed, and the southern half, in which mains are to be extended into new territory or entire new systems are to be built. The division line would run about through Harvard station. The first district in importance requiring sewerage south of this line would be, no doubt, the village of Lower Mills. The drainage of this place should be divided, part going into the Dorchester Lower Mills Intercepting sewer, and part into the Neponset Valley Intercepting sewer. In the first part the system of combined sewers and storm overflows can be followed, but in the second part the conditions are different.

Here there is already quite a system of surface drains built, running into the Neponset, and this system can be easily extended. A separate system of house sewers can be built connecting with the Neponset Valley Intercepting sewer.

There is another district in Dorchester, building up rapidly and demanding drainage. It is in the neighborhood of Dorchester and Forest avenue stations, including such streets as Lauriat, Jones, Ballou, and Chapman avenues, Nelson, Corbett, Evans, Maxwell, Selden, and Capen

streets. The existing sewer in Norfolk street is built at such a high grade that it cannot be extended to reach any more territory. A little more can be done by a new sewer to Talbot avenue, near Bernard street, by way of Lyons street. But a scheme to provide for the whole district will require a new outlet either to Dorchester Bay or the Neponset River, including in either case a tunnel through the ridge which forms the divide line of the Stony Brook basin, within which a large part of this territory lies. Many schemes could be proposed; the problem is intimately connected with that of deepening the Canterbury branch of Stony Brook and draining the meadows west of Dorchester station, and might be solved at the same time (by the proposed Stony Brook tunnel to the Neponset, for instance, recommended in 1886 by the Stony Brook Commission as a remedy for the floods on Stony Brook), but the demand for sewers will probably be so many years in advance of that for the brook improvements, that it will have to be solved separately.

A careful study of the territory will have to be made, and plans of different lines prepared, before the subject can be properly discussed.

#### *Work done during 1891.*

Twenty-eight thousand five hundred and seventy-six linear feet of sewers, and four hundred and forty-two linear feet of culverts, have been built in Dorchester during the past year. This represents the largest amount built in any one district, also the greatest variety of work. Special mention of some of these sewers should be made. Work on the system at Savin Hill, which was commenced in 1890 under special loan, has progressed rapidly the past season. The separate system was adopted here, as the location was particularly adapted to it. The house sewage goes to the Dorchester Intercepting sewer, while the storm water empties into Savin Hill Bay. This work was shut down only when the appropriation was exhausted, late in the fall. A new appropriation is now at hand, and the work will be started as soon as the weather is suitable.

The sewer in Westville street is in process of construction the present time. It is one of several sewers that are to be constructed in this and adjacent streets the coming season to afford much-needed relief to that locality, which is building up very rapidly. These sewers will empty into the sewer in Geneva avenue extension. The territory is low and has needed drainage very much for some time. In connection with this sewer a surface drain is being built in

Westville street and Geneva avenue extension to relieve the territory between Westville and Bowdoin streets. The building of Geneva avenue extension at this point has obliterated a brook that took the drainage of quite a large area. The sewer in Kilton street, from Talbot avenue to Harvard street, is about completed. It affords an outlet to a large territory between Kilton and Washington streets. An extension of it has also been built through Harvard and School streets to Washington street. Construction on the Dorchester Lower Mills Trunk sewer was started in the spring, without a special appropriation, and continued until a lack of funds necessitated a shut-down in the fall. An appropriation is now at hand with which to continue construction the coming season.

In Dorchester we have a forcible illustration of the value attached to sewers by the people, even in a suburban district. There were 10,729 linear feet of sewers built by private parties, and released to the city, in this district the past year. It shows that the people of this vicinity require sewers, and if the city cannot build them, owing to lack of appropriation, they take the expense upon themselves.

#### WEST ROXBURY.

This part of the city may be divided into two parts, as far as future sewer building is concerned. In and near Jamaica Plain there will be nothing but ordinary extensions of the existing system. In the remaining part of the district, main sewers are now being built, and the building of the laterals for each street will soon follow. These mains are only large enough to carry the house sewage and a small amount of rain water from the street surfaces when the district shall have become well settled. The extensions will have to be on the same scale, and the means of relief in time of rain, that of overflowing the storm water into the brooks.

Near Forest Hills station, the Anson and Mark streets district will have to be provided with an outlet to Washington street very soon.

In the district near Sycamore, Florence, Brooks, and Ashland streets there are many houses being built which cannot be sewered by extending the existing sewers in those streets. An outlet from the extreme north-westerly point of Florence street to the northerly of the two intersections of South and Washington streets will meet this want for the present.

In regard to the Roslindale main sewer, it would seem to be the best policy to extend it to Highland station before many laterals are built; for although there is a considerable





population, and apparent need for sewers, in the neighborhood of Bellevue and Central avenues, there is not such an urgent demand for them as there is on such streets as Mount Vernon, Bellevue, Corey, Park, and Centre streets and other streets near Highland station. The whole appropriation for this district should therefore be devoted to extending the main sewer.

*Work done during 1891.*

Eight thousand five hundred and seventy linear feet of sewers, and one hundred and ninety linear feet of culverts, were built in West Roxbury during the past year.

The Roslindale and West Roxbury trunk sewer was the only work of any magnitude in the district. This sewer, as projected, is to extend from Washington street, Roslindale, to Highland station, following as near as practicable, through streets and private land, the course of a tributary of Stony Brook; 4,346 linear feet had been completed the past season, when the appropriation was exhausted and the work stopped. A new appropriation is now available, and the work has been started. It is advisable to reach Highland station with the sewer as soon as practicable, for the reasons above stated.

BRIGHTON.

In this section of the city, which is developing rapidly, and in which there were no sewers prior to 1878, there will be a continually increasing demand for sewers for some time to come.

Immediate steps should be taken to straighten out the question of natural watercourses, and to relieve some of the existing sewers that are overburdened with surface water which ought to have been excluded from the sewers and allowed to flow in the old watercourses. In that portion of the district lying between North Harvard and Franklin streets, the B. & A. R.R., and the river, there will probably be considerable demand for sewer building, now that the Metropolitan sewer is completed. This is a favorable locality for building a separate system of surface drains to run to the river, and to the brook, which is the natural drain of that part of Brighton. Two large tracts of land in this locality have been subdivided during the past year, streets laid out, and sewers built by private parties, under the city's directions, and released to the city when completed. This shows that the locality will probably build up rapidly; and as the land has but a slight elevation above tide-water, the building of sewers must keep up with its growth.

The separate system of sewers in this part of Brighton could be very easily and cheaply carried out, if it were not for the fact that the brook in the vicinity presents one of the worst cases of the abuse of natural watercourses in the city. The brook has been taken into the sewers at Union street, Washington street near Cambridge street, North Beacon street near Arthur street, and at Everett street, thus overcharging the sewers, and causing flooding of cellars. Land-owners have taken prompt advantage of this fact, and have filled in and obliterated the channel of the brook in many places. At the corner of Everett and Braintree streets houses have been built over the old watercourse, and the remnant of the brook is carried in a pipe through the cellars. This connection of the brook into the sewer system should be stopped at once, the sewer restricted to the service for which it was built, and the great flood of surface water returned to the channel of the brook. Unless these brook channels are restored, the city must build a large surface drain in Everett and Braintree streets to connect with the old channel through the railroad yards, which has been preserved. It is hardly necessary to say that this would cost a large sum of money. It is earnestly recommended that the brook be restored at once, and private parties who have filled it in be notified to remove the obstructions, and to define its course by takings, as in a few years it will be practically impossible.

In building sewers in this region draining directly in the Metropolitan sewer, particular care should be paid to making them water-tight. Water-tight sewers should be built everywhere; but it is more important in the lowland, because all this water will always have to be pumped, whereas, in the highlands, after the high-level intercepting sewers are built, it will run to the outfall by gravity.

There is another brook, sometimes called Smelt Brook, requiring attention. It follows approximately the course of Commonwealth avenue. In building this fine avenue, little or no attention seems to have been paid to the question of providing channels for the surface water across the location of the avenue. No culverts were built where it crossed hollows, which has resulted in the formation of marshy ponds. In one place, an existing culvert was stopped up by filling over one end of it. This last piece of negligence blocked off a considerable branch of the brook and resulted in having to turn it into the Redesdale street sewer, rather than disturb the newly surfaced avenue by rebuilding the culvert. The Redesdale street sewer is now gorged with this brook water at every storm. Near Allston street the same thing has been done,

and a large area which formerly drained down into the brook channel in the vicinity of Holmes avenue is now forced to drain along the north-western side of Commonwealth avenue, and goes to aggravate the trouble at Redesdale street. This last culvert should be rebuilt at present, even at the sacrifice of the surface of the avenue. The others might wait until the teaming, sewer building, etc., incident to the completion of the avenue destroys the surface.

West of Foster and Parsons streets there are no sewers in Brighton, with the exception of a short pipe sewer near Faneuil. The existing system of sewers has been extended westward from Parsons street as far as possible, and no more sewers can be built until a new outlet is provided. There are not many houses now in this part of Brighton, but there are quite a number of petitions for sewers several years old, and the subdivision of the land into house-lots is in progress. With an outlet provided to accommodate lateral sewers, this territory undoubtedly would build up rapidly. In this valley flows a large brook. If the city had the right to use this brook for sewer overflows, a system of sewers could be built at a comparatively small expense for this section, as the sewers required to take the house sewage and the first wash of the streets would not be large. If the city does not acquire this right, it will be many years before money enough can be raised to build sewers on the ordinary combined principle.

#### *Work done during 1891.*

Eleven thousand six hundred and ninety-seven linear feet of sewers, and two hundred and eight linear feet of culverts, were built in Brighton during the past year.

While there were no sewers of special magnitude built in this district during the season, there is one noticeable fact regarding the amount constructed, namely, the number of linear feet built by private parties under the city's direction is nearly double that built by the city. The cause in this case is the development for building purposes of two tracts of land in Allston.

It is getting to be a custom in some of the suburban districts for parties having land they wish to put on the market, to subdivide it, lay out and construct the streets and build the sewers, under the direction of the proper authorities, before building the houses. It has been demonstrated that this method gives the quickest returns for the money expended, and that land which would otherwise lay idle for years can be readily disposed of.



## FUTURE WORK OF THE DIVISION.

The bulk of the work of the department in the future will consist of sewerage the suburban districts, and the most important question for this department to settle is that of the best policy to be pursued, in view of what has already been done, and of what will be required.

Large areas are already partially sewerage, upon the combined system, with sewers which are rapidly becoming inadequate to perform the double duty imposed upon them, that of carrying both sewage and surface water; and the problem which confronts the division is twofold, — to devise a remedy for these inadequate sewers, and to settle upon a policy to be pursued in building the extensions into new territory, which must necessarily be connected with the present system. Before proceeding further, it may be well to call attention to the great variations in the amount of surface water which the same district will yield under different conditions of surface. Thus, with a certain rainfall, 100 acres of land, with few roads and scattered houses, might yield a flow of 188 gallons per second; the same land, well developed, cut up into small house-lots occupied by dwellings, and with good macadamized roads, would give twice that flow, — 375 gallons per second. With the streets paved and dwellings replaced by business blocks, the yield would be 450 gallons per second, 240 per cent. of the first. In view of this fact, it is not difficult to see how the present inadequate system came to be built; indeed, it is difficult to see how it could well have been otherwise, considering the manner in which a city grows. All land when first developed into house-lots (where sewers are now usually called for) is in the condition first described, gradually changing into the second condition, and perhaps into the third. The engineer called upon to design the sewers does not feel justified in designing them large enough to meet the requirements of a fully developed district, unless he can be assured, not only that such development will take place, but that it will take place within a reasonable period of time. If such development were certain to take place finally, but not likely to occur within, say, twenty-five years, it would still be better financial policy to build a sewer of small size, fully understanding that, having served its purpose, it would be abandoned, and rebuilt larger at a later date, than to sink the capital required to build the large-size sewer in the first place.

Then the very fact of the existence of a large system of small sewers ensures the extension of the same system on the same scale, for it is folly to build a new sewer larger

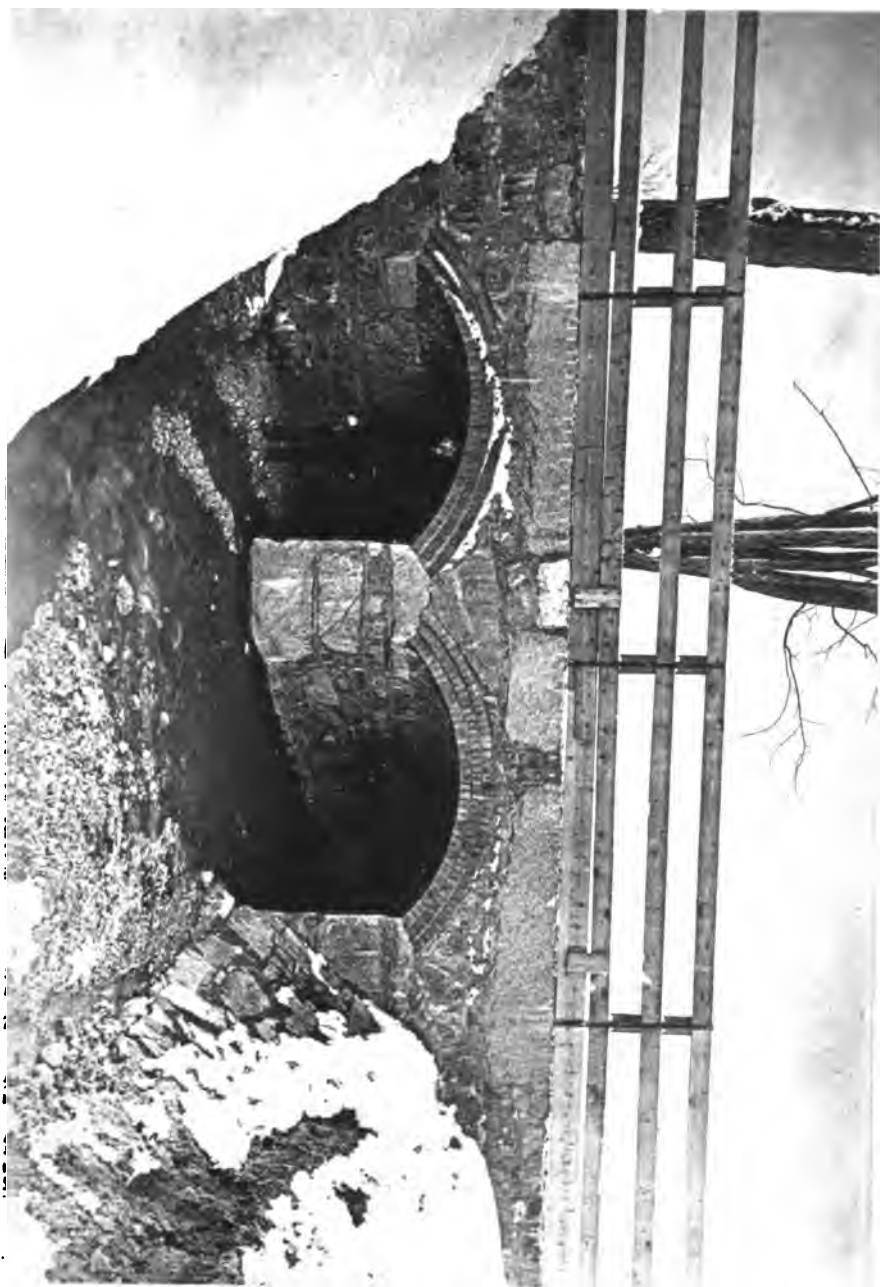
than the one through which it discharges, unless there is a probability of being able to rebuild the outlet sewer in the near future. There is also another cause operating powerfully and often, to bring about the building of sewers known at the time of building to be inadequate, and that is the necessity, under our methods of raising money, of reaching districts imperatively needing sewers with a limited amount of money. Under these circumstances, the public health being threatened, the division does not feel that it has the right to refuse relief, because it does not have money enough to build the proper theoretical size. All these causes conspire to produce the same effect, namely, the building of sewers which subsequently prove inadequate.

It is not necessary to allege incompetence in our predecessors to account for the existing inadequate system; natural causes are sufficient to account for it, and the same causes will continue to operate and to produce the same results.

We have then on our hands this large system of suburban sewers, which is now proving insufficient in size to carry all the sewage and surface water now admitted to it, and the first part of our double problem is to provide relief. Any plan for relief should include utilizing the present system to the greatest extent practicable. To rebuild the whole of it is out of the question. There are left only two alternative courses: first, to build a system of large intercepting relief sewers, of sufficient capacity to carry all sewage as well as storm water; second, to utilize the natural watercourses for the conveyance of storm water. The first course, although not out of the question, is excessively costly; the second is not, and, although presenting some difficulties, is entirely practicable, and is the one which is recommended. The project of utilizing the watercourses is, for surface drainage, not only cheaper in first cost, but the burden of the cost is incomparably easier to be borne by the city, from the manner in which it will be imposed. The cost of a relief sewer must be borne all at once. When built, it must be built as large as will ever be required, because its capacity cannot be expanded to meet the constantly increasing requirements of the district. The watercourse or brook channel, on the other hand, does admit of such expansion. The development of the brook into a relief sewer could be made to keep pace with the development of the district, first by a deepening and widening, then a further deepening and walling, next paving, and last the covering in. The conversion of the brook into a storm sewer is then complete, without any large sum of money having been expended years in advance of the needs of the district.

Money for drainage of any kind is always granted unwillingly, never until absolutely necessary; the difficulty of obtaining it increases with the amount asked for; hence it follows that a district needing an expensive relief sewer would suffer long and severely, before the large lump-sum required could be obtained, whereas the comparatively small sums needed at any one time for increasing the efficiency of the brook channel could be much more readily obtained. The application of this method of relief in districts already sewered will present but few difficulties. In many cases an overflow can be constructed direct from the sewer into the brook where the two cross; but in many other cases the sewer crosses under the brook, and in such cases either one of two methods may be adopted. If there is considerable pitch to the brook, a few hundred feet of its length may be lowered; that is, a part of the ultimate deepening may be done at present; or, if that is not feasible, a short length of storm sewer can be constructed from the brook to a point where the common sewer is higher than the brook, and the overflow effected there. The last plan can be followed wherever desired, as the brook is always in the lowest thread of the valley. All catch-basins near natural watercourses or storm sewers should be turned into them, instead of into the common sewers, and it is hardly necessary to say that where brooks have been taken into sewers, they should be restored to their old channels, and that, too, before the territory adjacent becomes any further developed. In regard to the second part of our problem, that which relates to the policy to be pursued in sewerage new territory, the circumstances in each case should be taken into account. In some favorable localities an entirely separate system of house sewers and storm sewers may and should be built. In such cases both sewers should be built at the same time, for the average citizen will not take the pains to understand the distinctions between them, and is exasperated if he cannot have a catch-basin to drain any water which may accumulate on the street, into the sewer as soon as it is built.

But in those places where new sewers must be an extension of the old system, there would be no advantage in a separate system. The most practical system, generally, will be a combined system, consisting largely of 12-in. pipes, uniting into mains large enough to carry the combined sewage and storm water from each little district, to where it crosses the first watercourse where a relief overflow would be established, and the size of the sewer reduced to one just large enough to carry the sewage and a small amount of surface water from the streets, the first and foulest washings.







FANEUIL STREET CULVERT (TO BE REBUILT) BRIGHTON

HEUDTKE PRINTING CO. BOSTON.



The main would then be gradually increased in size as it passed through the next small district, until it reached the next watercourse, when it would be reduced as before, and so on. The first cost of this system, since the brooks would not have to be deepened for some time, would be less than that of the separate system, if in the latter both kinds of sewers were constructed at once, and would be little greater than the cost of the house sewers alone of that system; because the only economy in laying a small pipe rather than a large one is in the extra cost of the pipe itself, the trench costing practically the same, and the latter item in all cases comprises the largest part of the whole cost of the sewer. The system recommended above would be practically an extension of the old system, and requiring and admitting of the same means of relief in the future, by means of the natural watercourses. The old sewers are, in the main, large enough to carry the house sewage and a small rainfall upon the street surfaces, and that is all that is desirable that they should do, provided the city is *assured* of the right to control and use the natural watercourses. It is this assurance that is lacking now, and which, if obtained, would render it possible to economize largely on future designs. The brooks should be seized at once by the city and the damages, if any, settled. The takings should be defined, and in doing this the wishes of the land-owners should be considered, and such divisions made as will leave the land in good shape for cutting up into house-lots.

The engineer would then know certainly at what points he could economize safely on designs for sewers. The department could then adopt and adhere to the policy as outlined above. It is the best adapted to the existing sewer system; it requires no wholesale destruction and reconstruction of sewers; it is the most convenient for the people; it is the cheapest in first cost, and superior, from a financial point of view, in the manner and times of requiring the investment of capital; it is the natural method of evolving, out of an old and ill-adapted system, the new system well adapted to the present and future requirements.

#### CULVERTS.

More attention has been paid to the natural watercourses this year than ever before. The constantly increasing floods (due to the development and change in the nature of the surface of the ground) have called the attention of every one to the inadequate size of the old culverts across the streets. These, up to the present time, seem to have been



built as they are in country towns, without the least regard to the size of the territory to be drained through them. In other countries, building a road is considered an engineering enterprise, and one of the problems connected with it is the determination of the location and size of the culverts for draining the valleys which are crossed. But in this city it has been left to the judgment of a street foreman, who, of course, had no means of calculating the proper size. These culverts have been inadequate for years, creating nuisances during every storm. Many of the worst have been rebuilt this year, and many more remain to be rebuilt. The rebuilding of one culvert of the proper size simply shifts the nuisance to the next culvert down stream, and calls for its rebuilding, and the process of enlargement will have to be followed down to tide-water. In all the culverts which have been built this year, ample provision has been made for the largest rainfalls likely to occur, and the culvert has been so designed as to accommodate itself to future deepening of the watercourse. In some cases the culvert under the street joins on to a culvert or some form of covered channel through private land. In these cases, the department has confined itself to rebuilding the culvert between the street lines only, leaving the channel through private land as before. This course clears the city from the legal responsibility of maintaining a nuisance, but does not remedy the liability of damage by floods, as the water is still held back by the small channel through the private land.

In this connection, it would be well to call attention to the lack of supervision in the matter of building private streets, which the city is afterward asked to accept. The location of such streets is now supervised by the city. There should be some engineering supervision over the size of culverts under them. The builder of a private street cannot be expected to know what size of culvert is required; he should not be required to rebuild it at greatly increased expense before the city is willing to accept the street; nor should the city be expected to repair the result of his ignorant action. He should be notified in the beginning what sized culvert will be required, and compelled to build it in a manner satisfactory to the city.

#### STONY BROOK.

Stony Brook, the largest of the city's watercourses, is now provided with an ample outlet, and gives little trouble. The effect of the development of its water-shed can be seen, however, in the increasing rapidity and height to which it









rises now at every rain, compared to what it did eight years ago, although now its outlet is ample in size, and then it was not. There has been a movement already to have the new channel, recommended by the commission of 1886, extended from the inlet chamber on Pynchon street to Green street. When this is done, provision must be made for continuing the supply of brook-water to the Boston Belting Company.

There are considerable areas of land near the brook which are too low to be drained by the existing Stony Brook Valley sewer system. Since the brook improvement of 1880-84, this land has been available for building. When the new channel is extended above the inlet chamber, it would be comparatively easy to design its sections, so as to carry upon its haunch a sewer for these districts; it would not be large, being for house sewerage only. From the inlet chamber down to the Roxbury crossing, there is a twenty-foot channel occupied only by the stream, which flows through a six-foot opening; a sewer could be built cheaply here. From the Roxbury crossing to the intercepting sewer in Hampshire street, corner of Linden Park street, there is a channel already built — the overflow channel — which would do with very slight alteration. If the new channel is built without providing this low-grade sewer, it will be difficult to ever properly sewer the low districts along the brook. The Grade Crossing Commission and the Rapid Transit Commission both have under consideration the project of raising the Providence Railroad. If the extension of the large conduit above the inlet chamber be made on the lines of the Commission of 1886, it will be directly alongside the railroad for a distance of 2,000 feet to Old Heath street, then again from near Amory street to a point 400 feet above Boylston street, 2,400 feet more; a total of 4,400 feet. The brook is from ten to fifteen feet below the railroad. The plan is to raise the railroad about fifteen or sixteen feet; the commissioners' plan would lower the brook twelve feet. If the railroad were raised before the brook was lowered, it would require a retaining-wall of 26 to 30 feet high. It would be very difficult and expensive to go down a depth of twelve feet alongside such a wall, carrying a four-track railroad, and build the covered channel recommended. If an open channel instead were built, the retaining-wall on that side would be 38 to 42 feet high. If the railroad is to be raised, the proposed extension of the brook channel must be built first, at least as far as Boylston Station.

### HIGH-LEVEL INTERCEPTING SEWERS.

An essential part of the scheme of intercepting sewers for Boston is to carry the sewage from the highlands above grade 40, directly to the outlet by gravity, and thus avoid pumping. To do this, a system of intercepting sewers was projected in Dorchester, Roxbury, and Brighton, to intercept the sewage from all land above grade 40. It is time that this system was begun, now that the State is about to pour into our system the sewage from the Charles River valley.

### HIGH-LEVEL RELIEF SEWERS.

There are some districts of the City Proper, consisting partly of high and partly of low land, in which the water from the highland fills up the sewers in the lowland at every rain. A system of relief sewers has been proposed for these districts, to tap the common sewers at a point above the level of the tide, and run the storm water from the highlands directly overboard, without connection with the sewers in the lowland portion of the district. The volume of the whole sewer system in the lowland district would then be available to store the storm water falling on the lowland alone until the ebb tide should allow it to escape, thus to a great extent preventing the flooding of cellars. Incidentally it would afford another means of relieving the pumps of the intercepting sewer system, and should be begun for the same reasons mentioned in the previous paragraph.

### MAIN DRAINAGE WORKS.

Special attention is called to this important branch of the Sewer Division.

During the eight years that it has been in operation the general working of this system has been very satisfactory. Many points have been developed that furnish valuable information for the construction of such a plant as this. One of the most important of these is the action of sewage and its gases on metals. It was expected that the sewage would have a decided action on the ironwork, but without definite knowledge of its extent, it was not deemed expedient to substitute other metals at a greatly increased cost. The sequel has proved that on certain parts of the pumps and gates, especially where subjected to friction, the substitution of other metals would have been expedient. The iron valve-seats on the pumps are worn away to such an extent that all of them will have to be renewed; this work is in progress now. The gate-seats in the sewers at Moon

Island are in the same condition, and are being treated in the same way. The method adopted to prevent a recurrence of the trouble, is to face the seats where the wear comes with a hard composition. Before commencing these renewals, tests were made with the metals combined and placed under similar conditions, to see if any galvanic action would result from the combination. None, however, has taken place. The boiler-feed and flue-heaters will have to be renewed, the old ones having burned out.

A certain style of heater is under consideration at present which will be much more efficient and lasting than the original one, at about one-half the cost.

Repeated mention has previously been made of the urgent necessity of keeping storm and soil water out of the sewers as far as practicable. The force of those recommendations is nowhere more apparent than at the pumping-station. The continual addition to the sewer system of new sewers, with catch-basins connected with them, brings a rapidly increasing amount of the storm water to the pumps. To this is added the leakage of soil water into the system, through the old and defective sewers that should have been rebuilt long ago. The result is that the pumps are often taxed to their uttermost capacity, and with water alone, not sewage.

The following figures will give an idea of the amount of this excess of water. The average daily consumption of water in this section drained by the Main Drainage Works, for 1891, was 35,686,900 gallons. The daily average amount pumped at the pumping-station (pump measurement), for 1891, was 62,582,683 gallons, allowing a liberal percentage for "slip" in the pump measurement due to the worn condition of the valve-seats. There still remains an amount in excess of the water consumption, or sewage proper, that shows conclusively the value of the above recommendation.

The building of the Charles River branch of the Metropolitan Sewer system the past season is going to further tax the pumps by the immediate addition of the sewage of Brookline and Brighton. In view of these facts it is evident that immediate steps must be taken to increase the capacity of the pumping plant by the addition of one or more pumps. It will take two years, at least, before this work can be finished, if action is taken immediately. On account of the increase in the amount of sewage, and the necessity of the occasional shutting down of the high-duty pumps for repairs, it has been and will be necessary to run the low-duty pumps much more than heretofore. As it takes more coal to do the same work with the latter pumps, it is recommended that a high-duty attachment be added to these pumps im-



mediately, as by so doing a saving of twenty per cent. in fuel can be made whenever these pumps are in use. This saving would pay the interest on the money invested twice over, even with the amount that these pumps are run at present.

The need of completing certain portions of this system, and the risk attending the delay of such action, has been pointed out to the City Government each successive year since the starting of the works. The need is more urgent at the present time than ever before, and unless the machinery designed for pumping out the Dorchester Bay tunnel, which was purchased in 1884, is placed in position at the east shaft, and the permanent conduit in the embankment between Squantum and Moon Island is pushed to completion, a stoppage of the present system of discharging may be looked for in the near future. The trouble feared in the former case is that the iron guides on the sides of the shaft are in danger of dropping into the tunnel, in which case the sewage would have to discharge into Dorchester Bay at the pumping-station. Should this occur, the delay and expense involved in pumping out the tunnel, with the means at hand, would be very great. The guides are held in position by being bolted to iron beams built into the masonry. The condition of the bolts is not known except at the surface, where it is shown that they are badly eaten away by the action of the sewage. They have been submerged for over eight years, and from the indications at the surface, and the knowledge of the action of the sewage on the iron on other portions of the works, it would indicate that there was danger of their dropping down the shaft at any time, even if some of them have not already. While there is some uncertainty in the above case, there is no uncertainty in the trouble to be expected in case the conduit between Squantum and Moon Island is not completed as quickly as possible. The wooden flume, which at the present time carries the sewage from the tunnel to the reservoir at Moon Island, is in very bad condition, despite the repairs that have been made upon it for the last four years. It was built for a temporary structure to be used until such time as the permanent conduit could be built. It has been in use longer than it was expected would be necessary, and is now in such condition that it is sure to go to pieces if any unusual strain is put upon it either internally or externally. Quite extensive repairs are at present being made upon it, which are only in view of keeping it in position. Many of the piles that support it are so eaten away that they are not five inches in diameter. It is not

only a menace in itself, but its condition is so weak that no proper test can be made of the tunnel, to discover its condition as regards deposits. If the flume should give way, the sewage would have to be discharged continually on the flats off Squantum, or in Dorchester Bay at the pumping-station, and not at Moon Island outlet, on the ebb tide alone.

### ENGINEERING WORK.

During the past year the engineering force of the Sewer Division has been busily engaged on the routine work of the division.

This work comprises the preparation of plans for new work on sewers, surface drains, and culverts, the making of record plans of work accomplished during the year, and the engineering supervision of the construction of sewers, drains, and culverts.

In addition to the above work, the force has been engaged in preparing topographical plans of the various sewerage districts, and in carrying out a system of accurate levels through the whole city.

In 1887 the department experienced much difficulty in carrying on its work on account of the lack of an accurate system of levels.

No attempt had ever been made to establish such a system, the elevation of different points having been borrowed from other departments, and long lines of levels run from them. These were necessarily inconsistent one with another, and errors had crept in which could not be located, owing to the absence of any thorough system of checking from one line of levels to another.

Discrepancies of over a foot were found, and the department possessed no reliable system of its own.

The Superintendent of Sewers at that time set about remedying this state of affairs; the engineering force was increased, and a portion of it employed exclusively in levelling, establishing *benches* all over the city, and levelling to the manholes, the elevations of hundreds of which were unknown and could not be indicated on the sectional plans of the office.

An accurate, consistent system of levels was carried all over the City Proper, Charlestown, South Boston, Roxbury, East Boston as far as Eagle square, Brighton to Oak square, Dorchester to Neponset and Dorchester station, and a single line of levels carried through West Roxbury to within one-half mile of the Dedham line.

A total of 374 benches and 2,262 manholes were levelled to.

It was also found that there was much inaccuracy in the plans of the city, which, although very accurate in places, were not *geodetically* correct, not having been based upon any comprehensive survey.

The topographical plans (the very basis of all sewer calculations) were very incomplete.

It was determined to supply both these deficiencies at once. A party was organized, and for the first time the city was triangulated, and upon this triangulation a stadia topographical survey was based.

This triangulation was developed from three different base lines of the United States Survey on the northerly side of the city, and a check obtained by connection with United States stations and State points on the southerly side of the city.

The most difficult part of such an undertaking is to select the points and make the observations for the first system of large triangles, which required sights sometimes ten miles long.

This system of triangles was established and developed into smaller triangles, whose sides varied from 3,000 to 6,000 feet in length, and the latitude and longitude of all observed points, some sixty in number, calculated.

This whole system of triangulation made by the engineers of the Sewer Division has been adopted and further used by the Board of Survey in its work of mapping out the city.

The stadia survey was completed in Brighton, and a fine map, accurate geodetically and topographically, was plotted.

This map has been traced in six sectional sheets during the year past, and blue-printed in a new style, the streets being rendered in white, so that the system of sewers may be drawn upon them, and the constant additions that are being built can be plotted, and the plans thus kept up to date.

These blue-prints are equally available for showing water-pipes, gas-pipes, etc.

The sketched topographical plans of the other parts of the city, which, although not strictly accurate, are valuable as showing the general features of the ground, have also been traced and blue-printed in the same manner, and can be reproduced to any extent desired. They are especially valuable, on account of their age, in preserving a record of the natural watercourses.

There is much work of this same sort remaining to be done. The stadia topographical survey should be carried over the remainder of the city, particularly Dorchester, West Roxbury, and Roxbury.

The bench-levelling should be extended into new districts where sewers will soon be built, and there are about 1,000 manholes now to be levelled to.

Two parties are devoted to this work now, while a third is employed in preparing alternative plans for sewerage the region to the west of Dorchester and Forest avenue stations, where some comprehensive plan must be adopted to provide a new outlet to tide-water.

### SEWER DIAGRAM.

A "sewer diagram" is appended which shows the method by which the sizes of sewers are calculated in this city.

The object of this diagram is to enable the person using it to arrive at a tolerably correct idea of the size of sewer required in any particular case as soon as he knows the principal facts concerning it, viz. :

First, the size and character of the district to be drained ; and, second, the fall which is available for the sewer. To accomplish this, two sets of curves are plotted with the same vertical and horizontal scales.

The first set, those springing from the lower left-hand corner and going toward the right upper corner, are designed to give the flow that may be expected from any given area.

The ordinates of these curves are cubic feet per second ; the abscissas written along the top are the number of acres drained.

There are five of these curves corresponding to that number of degrees of steepness of surface, namely :

One for flat districts, the general inclination of which is 5 feet per 7,000, and others for steeper slopes, up to 100 per 1,000.

The curves are plotted according to the interpretation of the Bürkli-Zeigler formula found in Gray's Providence Report of 1884, using the table of coefficients which he gives there, and giving the value 1 to the factor  $r$ , the rate in inches of rainfall per hour ; or, in short, the curves give the flow which may be expected from any given area, from a rainfall of one inch per hour, falling at a uniform rate.

For example : 100 acres, the general pitch of the surface of which is 5 feet per 1,000, yield 30 cubic feet per second ; if its slope is 20 per 1,000, 42 cubic feet ; if 100 per 1,000, 62 cubic feet.

The second set of curves, those going from the left downward toward the right, represent the capacities of sewers of varying sizes at various inclinations.

They refer to the same vertical scale of cubic feet per

second ; and the horizontal scale is in terms of the horizontal component of the angle of inclination, or the number of feet horizontally in which the sewer falls one foot vertically, or the ordinary terms in which the pitch of a sewer is described as 1 : 500, 1 : 1,000, etc.

For example : A 4-foot circular sewer, running 3 feet deep, at a pitch of 1 : 150 carries 105 cubic feet per second.

If the sewer is running under a head, the slope of the hydraulic gradient, of course, must be taken, not the actual pitch at which the sewer is built.

The whole operation, then, is as follows : Suppose we have to drain 200 acres lying at a general slope of 20 feet per 1,000, and our outlet sewer can be given a fall of 1 : 500 ; then we find that 200 acres, at a slope of 20 per 1,000, yields 70 cubic feet per second ; and looking on the sewer curves, we find that at 1 : 500, a 4-foot 6-inch circular sewer running 3.25 feet deep carries 74 cubic feet per second. This, then, is the size indicated by the diagram.

The angles in the curves are due to changes in scale, both horizontal and vertical. It is not practicable to plot them on any one scale without making them either illegible at one end, or stretching them out to an unmanageable length at the other end.

If plotted on any one scale, the curves would, of course, be smooth sweeps. It will be noticed that the scale of acres drained at the top, and the scale at the bottom showing the pitch of the sewers, are made to correspond, as, for example, the same vertical line indicates 500 acres on the drainage-area curves, and a fall of 1 : 500 on the curves of capacities of sewers. This is done to avoid mistakes in the use of the diagram. Although the scales at the top and bottom indicate different things, and refer to different sets of curves, it does not make any difference which is used. The note in the corner states that these drainage-area curves are calculated for suburban districts ; if the district is closely built upon and paved, an allowance of 20 per cent. should be added ; if in a rural state, 30 to 50 per cent. should be subtracted.

The diagram is particularly convenient in discussing schemes of sewerage ; the sizes of sewers required by different plans can be compared, and the results of proposed changes or modifications can be seen in a moment without going through tiresome calculations.

Another application is to show about what a sewer carried under some unusual conditions when completely submerged, for instance, and discharging under a very small head.

The sewer curves are plotted from Clark's tables. The quantities agree very closely with the Kutter formula (taking

were set to work. Patrol wagons, to collect the litter which had been allowed to lie in the gutters undisturbed for months.

The sewer curves are plotted by the Kutter formula (taking quantities agree very closely with the Kutter formula (taking

$n$  as .013) for medium-size sewers; for the smallest sewers they are 10 or 12 per cent. larger, and for the largest sewers they are 10 or 12 per cent. smaller, than Kutter's formula would give. A line is also plotted following the general direction of the set of curves first described, and representing a discharge of one-half cubic foot per second per acre. This line is given for reference, as it represents the allowance which was formerly made for the quantity of water a district might be expected to yield. A few approximate velocity curves are also plotted.

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### STREET-CLEANING DIVISION.

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Several years ago Boston was noted for the appearance of its streets, which were referred to throughout the country as models of cleanliness. A gradual change for the worse in their condition has been taking place, until in the fall of 1890 their condition was such as to call out a protest addressed to the Mayor, setting forth the "outrageous and unwarrantable dirty condition of the principal streets of our great city," and stating that "if our streets were kept clean, as are the principal streets of New York City, — Broadway and Fifth avenue, — the amount of dirt now brought into our stores would be avoided, and property saved from great loss by the damage done our merchandise by dust and dirt, and the general health of our people would be protected."

This protest, signed as it was by a large number of influential citizens, carried great weight, and a public hearing was held. At this hearing the official in charge of the street-cleaning stated that the streets were as clean as it was possible to keep them, and that no change for the better could be made, even if \$1,000,000 was spent in their care. The matter was then dropped until the beginning of the next municipal administration, when, on January 17, 1891, the duty of cleaning the streets was taken from the hands of the Superintendent of Sanitary Police, where it had always rested, and placed in the hands of the Acting Superintendent of Streets. Pending the organization of a separate division of street-cleaning, which could only be elaborated after careful study, steps were at once taken to clean up the city, and the combined forces of the Paving Department and such force as could be spared from the Department of Sanitary Police were set to work. Patrol wagons, to collect the litter which had been allowed to lie in the gutters undisturbed for months,



were sent round ; and in general an effort was made to clean up the city. The labors of this force soon produced an effect, as indicated by the change in tone of the press and the comment made by the public on the improved condition of the streets. Meanwhile a study was being made of the reason why the condition of the streets had been so unsatisfactory in the past, and a plan was elaborated for their better care in the future.

The reason why the streets had grown more filthy from year to year was easily discovered. The system of cleaning in vogue, while it answered for twenty years ago, had been entirely outgrown. Notwithstanding the enormous growth of the city, the system had never been changed to keep pace with this growth. The organization of the street-sweeping force was divided up into two large double gangs and one small single gang. One large double gang, with headquarters at the West End stable, attended to the streets in the North End, East Boston, Charlestown, and the Back Bay. The other large double gang covered the streets from State street to Washington park at the Highlands and the streets of South Boston and Dorchester. A small gang, with headquarters at the Highlands, attended to streets in that vicinity.

The double gangs mentioned above worked in two divisions without any well-defined limits of area, and in such a manner that a great deal of time was wasted in going to and from their work. The failure to distinctly separate the work of the divisions resulted in one division travelling over the same ground just covered by another division, in order to reach the territory in which it was to work. The transportation of sweeping-machines and men to remote localities, such as Charlestown, East Boston, or South Boston, in itself wasted a valuable amount of time which should have been expended in actual sweeping-work. The areas laid out for these gangs were entirely too large. Nothing but a printed list of streets to be swept on certain days of the week was in existence as a guide to the foreman in his work. This list had grown obsolete, owing to the impossibility of covering the entire area laid out, and the work was largely done by general orders to work where the dirt was the greatest.

But little attention was paid to Brighton, West Roxbury, or the other remote suburbs. Two or three times a year, when the streets in the main portion of the city were supposed to be in fairly respectable condition, the entire force was transferred to the suburbs, and a spasmodic attempt made to clean the gutters.

In winter, the larger part of the force was transferred to the work of collecting ashes, and the work of cleaning the

streets almost entirely neglected. The dirt which accumulated by this method was frequently an inch deep over the surface of the street. During the time that snow remained on the street, or while the temperature was below freezing, this neglect did not involve much discomfort to pedestrians; but on the occurrence of a thaw, the streets became almost impassable.

Immediately on the consolidation of the departments being effected, a new division was formed, known as the Street-Cleaning Division, whose duty was to devote its attention solely to the cleaning of the streets, independent of the removal of ashes and garbage. Inasmuch as the cleanliness of the streets holds such a close and vital relation to the health and comfort of all citizens, it was thought important enough to demand continuous work of a force assigned for that important purpose throughout the year.

A tabulated list of the streets of the city having been prepared, classified according to districts and according to the style of paving, showing the length, width, and area of each street, enabled the total amount of paving to be swept to be determined. A table was also prepared showing the miles of macadamized roads the gutters of which were to be scraped and cleaned at proper intervals. These paved streets were marked on a city map, and then by successive approximations the division lines of the proposed sweeping-districts were so determined that each foreman of a district would have a stipulated number of square yards of paved area to take care of; this amount was determined by the number of square yards known to be covered by the average work of sweeping-machines.

A study of this map, together with the data concerning the number of square yards to be swept, showed that it was advisable to divide the city into nine sweeping-districts. These districts being much smaller in extent than the sweeping districts into which the city had formerly been divided, enabled a better supervision to be exercised over the cleanliness of the city in general.

The following districts have been established :

*No. 1. West End.*

This district is bounded by Washington, School, and Beacon streets and Charles River to Charles River bridge.

*No. 2. North End.*

This district is bounded by Charles River from Charles River bridge to Central wharf, and by Central, Milk, Washington, and Causeway streets.

*No. 3. South End.*

This district is bounded by Central, Milk, Washington, Kneeland, Lincoln, Harvard, and Utica streets and Fort Point channel to Central wharf.

*No. 4. South End.*

This district is bounded by Utica, Kneeland, Washington, School, Beacon, and Dartmouth streets, Columbus avenue, Berkeley and Dover streets, and Fort Point channel to Federal street bridge.

*No. 5. Boston Neck and Back Bay.*

This district is bounded by Dover and Berkeley streets, Columbus avenue, Dartmouth street, Charles River, West Chester park, Falmouth, Gainsborough, Hammond, Ball, Hunneman, Fellows, Northampton, and Albany streets, and Roxbury Canal, South Bay, to Dover street bridge.

NOTE. — Harvard bridge is swept in this district.

*No. 6. South Boston and Dorchester.**No. 7. Roxbury and West Roxbury.**No. 8. Brighton.**No. 9. East Boston and Charlestown.*

In laying out the sweeping-districts, the amount of pavement was carefully measured, and the boundary lines of each district were so fixed that each foreman would have an equal amount of work to superintend.

The first five districts are made up as follows :

District No.	Paving, sq. yds.	Gutter, sq. yds.
1 . . . . .	183,094	34,800
2 . . . . .	194,710	1,800
3 . . . . .	195,330	1,900
4 . . . . .	193,186	16,200
5 . . . . .	227,630	129,140

		Sq. yds.
1. Paving cleaned 3 times per week . .	.	549,282
Gutter " once " " . .	.	34,800
Total " " " " . .	.	584,082

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District No.								Sq. yds.
2.	Paving	cleaned 3 times per week	.	.	.	.	.	584,130
	Gutter	" 2 " " " "	.	.	.	.	.	3,600
	Total	" " " " "	.	.	.	.	.	587,730
3.	Paving	" 3 " " " "	.	.	.	.	.	585,990
	Gutter	" 2 " " " "	.	.	.	.	.	3,800
	Total	" " " " "	.	.	.	.	.	589,790
4.	Paving	" 3 " " " "	.	.	.	.	.	579,558
	Gutter	" once " " " "	.	.	.	.	.	16,200
	Total	" " " " "	.	.	.	.	.	595,758
5.	Paving	" 2 " " " "	.	.	.	.	.	455,260
	Gutter	" once " " " "	.	.	.	.	.	129,140
	Total	" " " " "	.	.	.	.	.	584,400

In districts 6, 7, 8, and 9 the amount of work to be done was not computed, as it was not possible to assign men enough to these districts so that they could be cleaned as often as the business section.

The amount of pavement in each of those districts is as follows :

District No.								Sq. yds.
6	.	.	.	.	.	.	.	238,635
7	.	.	.	.	.	.	.	123,680
8	.	.	.	.	.	.	.	125,000 ±
9	.	.	.	.	.	.	.	269,645

In the above arrangement of work, two sweeping-machines are assigned to each of the first five districts, which allows for 100,000 square yards per day, or 600,000 square yards per week, as a double sweeping-machine can cover, on an average, 50,000 square yards in a day in actual practice.

As will be seen by the above table, the first four districts are covered every two days. In these districts the following streets are covered every day :

Green street, Bowdoin street, Court street, Court square, Tremont street, Hanover street (from Court street to Blackstone street), Adams square, New Washington street, Portland street, Friend street (west of Washington street), Hay-

market square, Haverhill street, Travers street, Causeway street, Union street, Dock square, Washington street (from Cornhill street to Dover street), School street, New Devonshire street, Kilby street, Liberty square, Exchange place, Central street, India street, Doane street, Faneuil Hall square, North and South Market streets, Clinton street, Blackstone street, North street (Union street to Blackstone street), Kneeland street, Bedford street, Chauncy street, Avon place, Summer street, Federal street (from Summer street to Beach street), Bromfield street, Winter street, Temple place, West street).

In South Boston, there are a large number of paved streets. The force assigned to this district cleans the streets on which there is heavy traffic twice a week ; it also spends two days per week in Dorchester.

East Boston and Charlestown are taken care of by one gang, whose headquarters are located in Charlestown. Eventually, a separate gang will have to be allotted to each of these districts ; but such an arrangement will not interfere, in a general way, with the organization of the rest of the force. A separate gang was not provided in East Boston this year, owing to the lack of stable accommodations.

In Brighton, a small gang is organized under the supervision of the district foreman of the Paving Division. There are no paved streets in this district, and the force is employed in cleaning gutters and crossings, and scraping macadamized streets.

Each sweeping-gang consists of a foreman, two sub-foremen, six helpers, sixteen sweepers, one dumper, one water-cart driver, six teamsters, and two sweeping-machine drivers. Each gang takes care of 200,000 square yards of paved area ; and the amount of gutter work that is added to the labor of sweeping is so adjusted that the total amount of work under each foreman is equalized as nearly as possible.

The assignment of work for each day is so made that the area covered each week amounts to about 590,000 square yards.

#### NIGHT WORK.

Owing to the early hour at which traffic commences in Sweeping District No. 2 (which includes the principal markets), and the consequent hindrance to the working of the sweeping-machines on account of the blockading of the streets with market-wagons, caravans, etc., the experiment was tried of sweeping this district at night. This system was inaugurated on June 10 and continued until November 14. A decided improvement of the appearance of this dis-

trict was immediately noticed ; and it is intended to introduce night-sweeping in District No. 3 during the coming year.

It is impracticable to carry on night-sweeping after cold weather sets in, for the reason that the force must be available in the daytime for the work of keeping crossings and sidewalks clean if a fall of snow occurs. It is practicable, however, to employ this method from April 1 to November 1, and such will be the practice of the division in Districts No. 2 and No. 3 during the coming year.

The maximum force of the division is shown in the following table :

District.	Average No. of										Men employed.
Office	.	.	.	.	.	.	.	.	.	.	4
1	.	.	.	.	.	.	.	.	.	.	37
2	.	.	.	.	.	.	.	.	.	.	39
3	.	.	.	.	.	.	.	.	.	.	32
4	.	.	.	.	.	.	.	.	.	.	34
5	.	.	.	.	.	.	.	.	.	.	35
6	.	.	.	.	.	.	.	.	.	.	36
7	.	.	.	.	.	.	.	.	.	.	30
8	.	.	.	.	.	.	.	.	.	.	10
9	.	.	.	.	.	.	.	.	.	.	27
Yard and stable	.	.	.	.	.	.	.	.	.	.	11
Push-cart patrol	.	.	.	.	.	.	.	.	.	.	37
Total	.	.	.	.	.	.	.	.	.	.	332

The above-mentioned force use in carrying out the work of the division the following plant :

16 double sweeping-machines.

15 single sweeping-machines.

12 water-carts.

70 street-carts.

72 horses (owned by the department).

The push-cart patrol use :

37 push-carts.

74 barrels.

5 street-carts (steel).

5 horses.

#### PUSH-CART PATROL.

The fact that the hourly accumulation in a business thoroughfare is due to street traffic, and to the large number of pedestrians throwing away fruit-skins, paper-bags, newspapers, and odds and ends of all kinds, led to the introduction of the *push-cart patrol*.

The push-cart consists of a two-wheeled truck, on which is suspended an oak barrel. The iron framework, including the axle, is made of curved iron to conform to the contour of the barrel, by means of a couple of hooks on each side, which fit into rings on the truck.

Each truck is furnished with two barrels, one of which, when full, is left at a stated point to be emptied by the patrol-cart, which makes a periodical trip through the district.

By this arrangement, the sweeper always has a comparatively empty barrel at his disposal, and can therefore continuously gather up the piles of refuse as fast as they appear, instead of sweeping them into piles, as in the old-style method, only to be blown about by the wind, and scattered about by passing teams before the dump-cart arrives. These push-carts are provided with proper supports for broom and shovel, and, if wanted, a sprinkling-pot.

In every case where they have been properly tried, they have proved a valuable acquisition to the service, and have occasioned favorable comment from all who desire a cleanly thoroughfare.

The introduction of the push-cart patrol as a necessary adjunct of the work of the division was made contemporaneously with its adoption in New York City, where it was a matter of experiment. The advisory committee appointed in New York to make a report on street-cleaning recommended that the entire city be swept by hand, and that 1,700 of these carts should be used. This method, however, is very expensive, as it costs two and one-half times as much as machine-sweeping; and it has been introduced into this city merely to supplement the regular work of the sweeping-machines.

The territory covered by this service includes the following streets:

Arch street, Avon place, Beach street (Washington street to South street), Beacon street (Arlington street to Charles street), Bedford street, Blackstone street (Hanover street to Cross street), Boylston street (Washington street to Park square), Bowdoin square, Brattle street, Brattle square, Bromfield street, Bulfinch street (Howard street to Bowdoin square), Causeway street (Merrimac street to Beverly street), Central street, Chardon street, Chauncy street, Columbus avenue (Park square to West Chester park), Congress street (Milk street to State street), Congress square, Cornhill, Court street, Devonshire street, Doane street, Eliot street, Elm street, Essex street (Washington street to South street), Exchange place, Federal street (Summer street to



PUSH CART PATROL SERVICE.

ILLUSTRATION BY THE NEW YORK PUBLIC LIBRARY, ASTOR LENOX TILDEN FOUNDATION, 1908.





Milk street), Franklin street (Washington street to Federal street), Friend street, Hanover street (Scollay square to Blackstone street), Harrison avenue (Bedford street to Kneeland street), Hawkins street, Hawley street, Haymarket square, Harvard street, Kilby street, Kingston street, Kneeland street, La Grange street, Lincoln street, Mason street, Merrimac street, Milk street (Washington street to Broad street), Otis street, Park square, Portland street, Post-office square, School street, South street, State street (Washington street to Broad street), Sudbury street, Summer street, Temple place, Travers street (Merrimac street to Beverly street), Tremont street (Eliot street to Court street), Tremont row, Union street (Hanover street to Haymarket square), Washington street (Kneeland street to Haymarket square), Water street, West street, Winter street, Winthrop square.

That this service is an important adjunct to the general work in the depot and trading districts cannot be denied. Even if these streets are swept perfectly clean in the early part of the day or during the night, the hourly accumulations are so great that the gutters and crossings soon become littered and an eyesore to pedestrians.

The contents of the barrels collected by the push-cart patrol are removed at regular intervals by an odorless iron dumping-cart. This cart does not leak, is easily dumped, and has proved a valuable adjunct of the work of collecting the contents of the barrels.

The refuse collected by the patrol is taken to the dumping-scow and towed to sea. The refuse has considerable value as manure, but the extra cost of teaming it to the railroad stations, where it could be sold to farmers, prevents the division from disposing of it in this manner.

The following table shows the number of loads of street-sweepings removed each year during the last ten years :

Year.	No. of Cart-loads.
1882 . . . . .	52,381
1883 . . . . .	58,272
1884 . . . . .	62,222
1885 . . . . .	61,455
1886 . . . . .	59,875
1887 . . . . .	68,990
1888 . . . . .	68,010
1889 . . . . .	70,476
1890 . . . . .	70,449
1891 . . . . .	<sup>1</sup> 87,113
1891 . . . . .	<sup>2</sup> 91,425

<sup>1</sup> Jan. 1, 1890, to Jan. 1, 1891.

<sup>2</sup> Jan. 1, 1890, to Feb. 1, 1892 (date made necessary by the change in the financial year).

Of this amount 4,290 loads were collected by the push-cart patrol.

### DIFFICULTIES ENCOUNTERED BY THE DIVISION IN KEEPING THE STREETS CLEAN.

The following quotations, taken from the report of the Committee on Street-Cleaning, appointed to investigate the subject in New York, apply to the city of Boston, and show that the inhabitants of a city are largely responsible for its condition as regards cleanliness :

If the existing laws and ordinances regulating the conduct of householders and citizens with respect to cleanliness were faithfully observed and duly enforced, the task of the Street-Cleaning Department would be greatly lightened.

The law against throwing litter and rubbish of any kind into the gutters and streets is daily and hourly violated in the best sections of the city, and that by people who have not the excuse of ignorance of the law.

We have seen prominent business-houses on Fifth avenue engaged in unpacking large cases upon the sidewalk, the operation involving the throwing into the streets of paper, straw, and litter of all descriptions.

We have seen well-dressed men, on their way down town, deliberately toss into the public highway the eight-page newspaper which they had just finished reading. We have seen the same class of people disembarass themselves of handfuls of paper and scraps by the same easy process.

We have seen men engaged in repairing the sidewalks, where the material taken up was decayed wood, throw the débris into the public streets, and leave it there in piles.

We have seen in front of a well-known and reputable establishment on Union square the remains of a large awning partially destroyed by fire cast deliberately into the gutter.

It is a matter of daily habit with many storekeepers upon the lines of the great lateral avenues to commence the day by sweeping out all the refuse litter of their stores into the streets.

It is useless to multiply these instances; every one will recognize the fact of their daily and hourly occurrence. It is a hopeless task to keep the streets of this city clean so long as the people themselves are determined to keep them dirty.

So thoroughly convinced are we of the absolute necessity of the enforcement of these laws and ordinances, if it is really desired to keep the city clean, that, as a most essential part of the remedy we have been called upon to suggest, we urge upon the Mayor, as the chief executive officer of New York, to exercise all the authority he can command to bring all the departments charged with the execution of these laws and ordinances into cordial harmony and coöperation for their vigorous enforcement.

Realizing that the enforcement of such ordinances as were in force in this city would have a marked effect upon the appearance of the streets, the department issued the following circular, and distributed it throughout the retail district of the city :

OFFICE OF SUPERINTENDENT OF STREETS,  
CITY HALL, BOSTON, April 4, 1891.

## NOTICE TO OCCUPANTS.

Your attention is hereby called to the following section of the Revised Ordinances in relation to throwing or sweeping dirt of any kind into the public streets:

## CHAPTER 49.

"SECT. 39. No person shall throw or sweep into, or place, or drop and suffer to remain, in any street, any hoops, boards, or other wood with nails, or nails of any kind which may be dangerous to horses' feet, any earth, dirt, gravel, sand, sweepings, sawdust, soot, ashes, cinders, shavings, hair, manure, oyster, clam, or lobster shells, rubbish or filth of any kind, or any noxious or refuse liquid or solid matter, or substance."

Sweeping store-dirt to the sidewalks, and thence to the gutters, is in violation of the above ordinance. You are therefore notified to provide other measures for the removal of all such sweepings and litter, as the above ordinance will be enforced.

(Signed)

H. H. CARTER,

*Superintendent of Streets.*

Following the issue of this circular, several parties were arrested and fined from \$10 to \$20.

There is no doubt that storekeepers still take advantage of the distinction between sweeping off the sidewalk and sweeping store-dirt across the sidewalk, as it is often noticed that they manage to get rid of the trouble of taking up a good deal of their refuse and putting it into barrels, by sweeping it into the gutters. The gutters in front of large wholesale and retail stores are frequently defaced with litter due to its being set out for the ashmen in broken boxes and barrels after the street itself has been swept up clean. A little painstaking on the part of store employees would help the matter considerably.

The ordinance will be even more rigidly enforced the coming year.

One of the greatest nuisances is caused by the distribution of handbills, which in most instances are thrown directly into the street without being read. An attempt was made by the department to get an ordinance passed by the government this year, to prevent this distribution; but, owing to the opposition of printers, the ordinance was not passed. Boston is now the only large city in the country which tolerates this nuisance.<sup>1</sup>

The constant tearing up of our streets also causes a large amount of dirt to accumulate. In replacing the pavements, it is necessary to cover them with a layer of gravel, which eventually works into the joints. As this gravel is not

<sup>1</sup> Since the date of the publication of this report, the City Council has passed an ordinance prohibiting the distribution of handbills.

permitted to be swept up, it becomes ground to powder, forming a mud which is distributed over the surface of the streets in the vicinity. This nuisance is obviated by laying the pavement with gravel and tar joints, such as were used this year on Tremont street; but the employment of this method where ordinary repairs have been made is impracticable.

The following circular was sent to the different corporations that have frequent occasion to open the streets, in order that this nuisance should be remedied as far as possible :

STREET DEPARTMENT,  
CITY HALL, BOSTON, Oct. 2, 1891.

You are hereby notified that in future all new paving done by your company is to be covered off with beach gravel instead of the dirty hill-gravel that you have been accustomed to use. This hill-gravel works into mud immediately, and I find it impossible to keep streets clean where it is used.

(Signed)

Yours truly,

H. H. CARTER,

*Superintendent of Streets.*

In addition to the above-mentioned causes for an unclean appearance of the streets, we have in this city to contend with bad and uneven pavements of long standing that are extremely hard to keep clean.

The duties of the Street-Cleaning Division are not entirely confined to the actual work of keeping the streets clean. In winter, the sidewalks around the Common and all public squares and burying-grounds, and around many of the public buildings, are kept free from snow by the employees of this division. The snow is also removed from Harvard bridge, and the street-crossings kept free from snow and ice, and the gutters are opened up, so that on the occurrence of a thaw the water may find its way to the catch-basins and thence to the sewers.

#### FUTURE NEEDS OF THE DIVISION.

The growth of the city will soon demand the organization of separate gangs for the care of East Boston, Dorchester, and West Roxbury. In order that time may not be wasted in the transfer of men and machines to the location of their work, it will be necessary to provide suitable stables and offices in each of these districts.

A new dumping-wharf (which can also be used by the Sanitary Division) must be provided at the North End.

All the ashes and street-sweepings now teamed over to Cambridge from the City Proper should be dumped aboard a scow at the North End and towed to sea, as the saving of expense on teaming would be very great.

## COST OF STREET-CLEANING.

In the report of the Citizens' Association for 1890, reference is made to the cost of street-cleaning and the removal of ashes and garbage in Boston, and a comparison is made with the cost in other cities, much to the disadvantage of the city of Boston.

The conditions which govern the expense of street-cleaning in different cities vary so much that it is almost impossible to make an intelligent comparison. The mere fact that a city has more miles of streets than the city of Boston, and spends less money on street-cleaning and the removal of ashes and garbage, does not necessarily show that the work is conducted more economically, as the question as to the thoroughness and method of carrying out the work is entirely omitted in such a comparison.

A comparison showing that it costs one city a certain number of dollars per mile to sweep the streets, and a certain number of cents per load to dispose of its street-dirt and ashes and garbage, does not necessarily show that the street-cleaning department in that city is either better organized or more economically managed than that of another city where the cost is shown to be greater. Certain local conditions and customs have a great bearing on the subject.

A city having well-paved streets, with a large number of accessible places suited for dumping refuse (so that the cost of teaming is reduced to a minimum), with no law established by the State Legislature limiting the hours of work to nine per day, and with a rate of wages for day-labor from fifty to seventy-five cents per day less than the rate established by the City Council of Boston, can undoubtedly show that it costs less to clean streets and remove ashes and garbage than it does the city of Boston.

In New York, ashes and garbage are not separated, but are put together in one receptacle, and are put in the space between the stoop and the house line, where they are easily accessible to the employees of the department. This method of obliging householders to put out their ashes and garbage, if adopted in Boston, would alone effect a saving of several thousand dollars per year, which the Sanitary Division expends for extra helpers who go into the houses and yards and carry out the ashes and garbage.

The report of the Citizens' Association cites Philadelphia and New York, and gives figures showing the amount of work done in comparison with the amount of money expended. The following table is taken from the reports of the Bureau of Street-cleaning in Philadelphia, where the work is all done by contract:

Year.	No. Miles cleaned.	No. Loads Street-dirt removed.	No. Loads Ashes removed.	No. Loads Garbage removed.	Total No. Loads removed.	Amount expended.	Com-plaints rec'd of inefficient Service.
1888.....	30,340	306,722	499,479	88,660	894,861	\$460,000	2,501
1889.....	44,870	256,572	413,631	59,593	729,796	425,042	1,381
1890.....	53,600	266,831	458,000	64,934	789,765	432,037	1,562
1891.....	.....	.....	.....	.....	.....	<sup>1</sup> 551,998	.....

<sup>1</sup> Amount recommended. Supervision not included.

If these figures are correct, it cannot be denied that the work of cleaning streets and collecting ashes and garbage in Boston costs much more than the same work in Philadelphia. The work in Philadelphia is done by contract, and the total force employed on the supervision is one chief of bureau, five inspectors, one clerk, and one messenger, at an annual expense of \$9,176. It might be asked how this force is enabled to keep the correct accounts of 900,000 loads of material collected and disposed of at different dumps. An inspection of the table reveals the remarkable fact that the offal of the city, which in 1888 amounted to 88,660 loads, fell off in 1890 to 64,934 loads. As the population increased during this time, and as the amount of offal should be a constant ratio to the population, this is a very remarkable showing, and tends to discredit the figures given in the report. In 1890, although 23,260 more miles of street were swept than in 1888, the amount of sweepings removed fell off 39,891 loads. As the average amount of dirt collected is generally about 6 loads per mile, there should have been a corresponding *increase* of 120,000 loads.

In view of the above facts, the generalizations by the Citizens' Association on the cost per load of dirt removed, which are based on these returns, must be accepted with caution. The sudden increase recommended for 1891, together with the fact that several hundred complaints are received during the year, leads to the conclusion that the work is not entirely satisfactory to the citizens, notwithstanding the extreme economy which is shown by the return.

New York is cited by the Citizens' Association to show the economical way in which street-cleaning is conducted, and also to show the advantages of the contract system. Since the report of the Citizens' Association, a report has been made by a committee appointed to examine the subject of street-cleaning in New York. This committee was appointed

by the Mayor to inquire into the filthy condition of the city, and has recommended the entire abolishment of the contract system, and that the sum of \$1,259,000 appropriated for street-cleaning in 1888 (which was cited in the report of the Citizens' Association) be increased to \$1,797,870 for the year 1892.

The cost of street-cleaning and the removal of ashes and garbage must necessarily vary in each city. A degree of cleanliness which would be entirely satisfactory to the residents of one city would be unsatisfactory to the residents of another. It is believed that the residents of Boston are more particular in this respect than the residents of most of the other large cities in the country, and that a degree of cleanliness is demanded here which is not deemed necessary in other cities.

The detailed report of the Deputy Superintendent of the Street-Cleaning Division gives tables showing the number of miles swept, cost of cleaning per mile, number of loads of street-dirt removed, and cost of same, together with other data relating to the division.

From the personal observations of officials connected with the department and from the comments made by visiting officials from other cities, it may be safely said that during the past year the condition of the streets of Boston as regards cleanliness has not been surpassed by those of any other city in this country.

A comparison of the condition of the streets of this city with those of European cities is frequently made by people who have returned from abroad. The following opinion, quoted from the ex-Commissioner of Street-cleaning of New York, fully explains the reason why European cities are cleaner than the cities in this country :

“ When superior cleanliness is observed in the principal cities of Western and Central Europe as compared with the condition of the streets in this city, it is not due to better methods of work or to the use of better apparatus, but is to be attributed to the existence of better pavement, the rigid enforcement of the municipal and sanitary ordinances relating to street-cleaning, the employment of at least double the amount of labor on the same mileage of streets, and the coöperation of the citizens with the officials in their task of securing and maintaining order and cleanliness.”

To this it might be added that European cities noted for cleanliness spend enormous sums of money on this work ; that men, women, and children are employed, who work twelve hours per day for a fraction of the sum paid laborers in this country who work only nine hours per day.



## VIOLATION OF CITY ORDINANCES.

A large amount of correspondence has taken place between this department and the Board of Police during the year concerning the enforcement of the ordinances. In general, the Board has been willing to prosecute parties when specially requested, and when the evidence of the violation of the ordinance was to be furnished by the department, but in some instances have assumed that it was the duty of this department to make the prosecutions.

The department has taken the ground, conformably to an opinion of Mr. J. B. Richardson, formerly corporation counsel, that it is the duty of the police to prosecute violations of the ordinances, and has contented itself with notifying the Board of Police of such violations as were brought to its attention.

The following correspondence shows the attitude of the police authorities in the matter of prosecuting violations of the city ordinances :

Form No. 66.

POLICE DEPARTMENT OF THE CITY OF BOSTON,

Nov. 4, 1891.

To CAPT. CYRUS SMALL, *Superintendent of Police* :

I hereby report that Conrad Zeigler, No. 50 George street, has a steam-pipe entering the catch-basin in front of his dye-house, and the steam frightens horses as they pass.

(Signed)

GEO. A. WALKER,

*Commanding Div. No. 9.*

Referred to the Superintendent of Streets.

Respectfully forwarded,

(Signed)

CYRUS SMALL,

*Superintendent of Police.*

OFFICE SUPERINTENDENT OF POLICE, BOSTON, Nov. 5, 1891.

STREET DEPARTMENT, CITY HALL,

BOSTON, Nov. 6, 1891.

BOARD OF POLICE, No. 7 Pemberton square :

GENTLEMEN: I have received your "Form No. 66," addressed to Capt. Cyrus Small, and signed by Geo. A. Walker, commanding Div. No. 9, to the effect that Conrad Zeigler, 50 George street, has a steam-pipe entering the catch-basin in front of his dye-house, and that the steam frightens horses as they pass.

For some reason, this report has been referred to the Superintendent of Streets. As a catch-basin can be held to be part of the sewer, and as the emptying of steam into the sewer violates a city ordinance, it would seem that you have the remedy in your own hands; unless you consider it a part of the duty of the Superintendent of Streets to prosecute people who are violating the city ordinances.

Yours respectfully,

(Signed)

H. H. CARTER,

*Superintendent of Streets.*

The following letter was addressed to the Board of Police, in the hope that some coöperation could be obtained from the police officers in the task of keeping the streets clean :

STREET DEPARTMENT,  
CITY HALL, BOSTON, Aug. 6, 1891.

BOARD OF POLICE, 7 Pemberton square :

GENTLEMEN: It is continually brought to my attention that the ordinance in relation to sweeping store-dirt into the streets is being violated. In fact, it is the regular practice of storekeepers to sweep out their dirt into the street at any time of day they see fit; and your policemen witness these violations and pay no attention whatever to them. These storekeepers should be compelled to sweep up their dirt and put it into barrels.

There is no reason, at least in the retail business section of the city, why this ordinance should not be strictly enforced; and I should like to have your officers warn the storekeepers whom they find violating this ordinance that on the repetition of the offence they will be prosecuted.

Yours very truly,

(Signed)

H. H. CARTER,

*Superintendent of Streets.*

#### CONCLUSION.

In carrying out the work of the department, the several divisions have worked in entire harmony throughout the year. The advantage is manifest of being able to carry on all work pertaining to the streets in such a manner that the work of the different divisions should be directed by one official, and therefore proceed with a system. There has been no useless duplication of work during the past year, and the work on sewers and paving has been carried along jointly, at a great saving of expense.

Appendices are submitted giving the reports of the different deputy superintendents, and, in accordance with the recommendation of the Citizens' Association, more attention has been given this year to introducing a new system of book-keeping ascertaining the cost of the various classes of work. Owing to the great number of streets on which improvements have been made, it is impossible to state, without taking up a great deal of space, the exact amount of work done on each street, although the expenditures are shown in all cases. When the cost of a sewer has exceeded \$2,000, and when the cost of the paving or construction of a street has exceeded \$3,000, the amount of work done is shown in detail. The several deputies have attended faithfully to their duties, and have endeavored to harmoniously work for the benefit of the whole department.

Respectfully submitted,

HENRY H. CARTER,

*Superintendent of Streets.*

# STREET DEPARTMENT.

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## ORGANIZATION, 1891.

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Central Office . . . . Room 47, City Hall.

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HENRY H. CARTER, *Superintendent of Streets.*

JOHN W. McDONALD, *Purchasing Agent.*

HENRY B. WOOD, *Secretary and Executive Engineer.*

M. J. MURRAY, *Clerk.*

### PAVING DIVISION.

Room 41, City Hall.

CHARLES R. CUTTER, *Deputy Superintendent.*

BENJAMIN B. TREMERE, *Chief Clerk.*

### SEWER DIVISION.

Room 44, City Hall.

HENRY W. SANBORN, *Deputy Superintendent (ex officio, Engineer Improved Sewerage).*

FRANK H. RICE, *Chief Clerk.*

Engineer's Office, 12 Beacon Street.

E. S. DORR, *Engineer in Charge.*

### SANITARY DIVISION.

12 Beacon Street.

GEO. W. FORRISTALL, *Deputy Superintendent.*

WILLIAM G. DAVIES, *Chief Clerk.*

### STREET-CLEANING DIVISION.

14 Beacon Street.

PHILIP A. JACKSON, *Deputy Superintendent.*

THOMAS McLAUGHLIN, *Chief Clerk.*

### BRIDGE DIVISION.

14 Beacon Street.

JOHN A. McLAUGHLIN, *Deputy Superintendent.*

FREDERICK H. SPRING, *Chief Clerk.*

### CAMBRIDGE AND BOSTON BRIDGES.

HENRY H. CARTER, *Commissioner for Boston (ex officio).*

WILLIAM J. MARVIN, *Commissioner for Cambridge.*

## APPENDIX A.

REPORT OF THE DEPUTY SUPERINTENDENT  
OF THE BRIDGE DIVISION.

H. H. CARTER, Esq., *Superintendent of Streets*:

DEAR SIR: In compliance with your desires I herewith respectfully submit the following report of the acts and doings of the Bridge Department and Division from January 1, 1891, to January 31, 1892, inclusive.

There was on hand to the credit of the Bridge Department, January 1, 1891, a balance of \$23,572.99 to complete the year ending April 30, 1891. This sum was found to be insufficient to the amount of \$1,201.10.

On May 1, 1891, the sum of \$100,000 was allotted to the Bridge Division, for care, maintenance, etc., of the bridges to February 1, 1892, and of this sum there were expended by this division \$98,236.54.

The report contains a tabulated statement of the expenditures, and a description of the work performed on each bridge, together with tables conveying necessary and useful information, such as bridges supported wholly or in part by the city of Boston, etc.; widths of draw-openings; widths of bridges, roadways, and sidewalks; kind of pavement used; number of draw-openings made for navigation; census of traffic taken on some of the most important bridges; and an inventory of tools, vehicles, and horses on hand.

The total number of bridges in Boston, not including culverts, is one hundred and four; of this number, sixty-nine are supported wholly or in part by Boston, and include twenty-one tide-water bridges provided with draws. These, of all others, require constant care, and cover a territory from one extreme end of the city to the other. Previous to May 1, 1891, all the mechanics, etc., employed in the department were grouped in one body, having their only headquarters at Foundry street, South Boston, where tools, rigging, stock, and everything necessary for the work was kept. After careful consideration, it was decided that the efficiency of the mechanics employed could be increased by dividing the care and work on the most important bridges and estab-

lishing two districts, allotting to each district a certain number of men. On May 1, 1891, the reorganization went into effect, and was as follows: "North district," headquarters, Charles-river bridge, embracing all bridges from Winthrop to Brighton. "South district," headquarters at Foundry street, embracing all bridges from South Boston to Milton. The results obtained have been entirely satisfactory, and much more work has been accomplished than it was possible to do under the old system. Both forces can be concentrated in a very short time wherever their services are demanded.

With the exception of Charles-river, Chelsea-street, and Malden, the general condition of the bridges is good.

The lumber furnished during the year by the several firms having the contracts has been of excellent quality, and I take pleasure in saying that in no single case were we delayed because of a failure to promptly deliver the material ordered. At all times care was taken in ordering lumber to specify such lengths as would admit of the least waste.

The operatives of the tide-water bridges have performed their duties in a faithful and careful manner. All these bridges are furnished with a duplicate set of gearing, so that in case of a break the public will suffer but little delay and inconvenience. All patterns owned by the city, and known to be in the possession of outside concerns, have been reclaimed and placed in the care of the draw-tender of the bridge to which they belonged.

The inland bridges have been kept in a clean and safe condition, were thoroughly swept each week, chords cleaned and scuppers kept open.

#### SPECIAL WORK.

The report contains also the expenditures up to date on bridges built, or in process of construction, where special appropriations were provided. On all these bridges, since May 1, 1891, the woodwork, where any was called for, — viz., Cornwall street, over Stony brook, Milton; Berkeley street, over Boston & Albany Railroad; and Chelsea steam-apparatus, — has been performed by the men employed in this division, under the supervision of the City Engineer, and by plans furnished by him. This work was formerly done by contract, but I firmly believe the best results can be obtained by allowing those men to build who are to keep it in repair. The difference in the cost, if any, under such conditions, would be trifling, compared with the advantages derived from a thorough knowledge of the work.

We have endeavored to perform all work of this kind to the satisfaction of the City Engineer.

During the past year, Federal-street bridge has been completed, and an electric motor placed there to furnish the power necessary for opening and closing the draws. It has now been in operation for several months, and, so far, has proven satisfactory. The work of substituting steam for horse power at both the Chelsea draws is about complete, and the new method will be operated in a short time.

Very respectfully yours,

JOHN A. McLAUGHLIN,  
*Deputy Superintendent.*

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APPROPRIATIONS AND EXPENDITURES FOR THE FOUR MONTHS  
ENDING APRIL 30, 1891.

Balance of appropriation, 1890-1, on hand, Jan. 1, 1891 . . . . .	\$23,572 99	
By transfer, April 30, 1891 (to make up deficit) . . . . .	1,201 10	
Total . . . . .		\$24,774 09

This amount was expended as follows:

By Bridge Department . . . . .	\$13,982 52	
" " Division . . . . .	10,791 57	
Total . . . . .		<u>\$24,774 09</u>

APPROPRIATIONS AND EXPENDITURES FOR THE NINE MONTHS  
ENDING JAN. 31, 1892.

Appropriation available, May 1 . . . . .	\$100,000 00	
Transferred to Sanitary Division . . . . .	600 00	
Total. . . . .		\$99,400 00
Expended to Jan. 31, 1892 . . . . .		98,236 54
Balance . . . . .		<u>\$1,163 46</u>

EXPENDITURES.

*Administration.*

Office expenses :		
Advertising . . . . .	\$10 12	
Printing . . . . .	224 00	
Carried forward,	\$234 12	

<i>Brought forward,</i>	\$234 12	
Stationery and postage . . . . .	152 94	
Office books . . . . .	24 50	
Telephone . . . . .	121 15	
Sundries . . . . .	43 95	
	<hr/>	\$576 66
Superintendent of Bridges :		
Salary to April 1, 1891 . . . . .	\$625 00	
Board of horse . . . . .	93 78	
Telephone at house . . . . .	24 00	
	<hr/>	742 78
Salaries of Deputy Superintendent, clerk, and messenger . . . . .		4,838 34
Salaries of general foreman and two district foremen, 9 months . . . . .		3,381 00
Board of Deputy Superintendent's horse . . . . .		261 00
Paid to widow of John T. Kilty, a former employee, by order of City Council . . . . .		1,000 00
Paid to Walter Friend & Co., agents for schr. "S. C. Tryon," damages caused by insufficient width of draws on Charles-river bridges, as award of Committee on Claims . . . . .		338 30
	<hr/>	
Amount expended, Administration . . . . .	\$11,188 08	
	<hr/>	
Expenditures on tide-water bridges . . . . .	\$92,892 53	
"    " inland " . . . . .	8,351 75	
"    North yard and stable . . . . .	4,357 90	
"    South " " " . . . . .	6,270 37	
"    Administration . . . . .	11,188 08	
	<hr/>	
Total amount expended for the year, including draw-tenders' and mechanics' rolls for January, 1892 . . . . .	\$123,010 63	
	<hr/>	

## INCOME.

The amount of bills for repairing damage done to bridges by vessels, work done by the department, and sale of old iron, etc., deposited with the City Collector during the year, was . . . . .	\$1,183 40
	<hr/>

## TIDE-WATER BRIDGES.

**Broadway bridge** (over Fort-Point channel).

Sheathed draw and roadway, general repairs on machinery, new centre put in under draw, boat repaired and painted, and on Lehigh-street span put in new deck and painted ironwork underneath two coats.

Carpenters . . .	\$987 72	
Painters . . .	121 25	
Lumber . . .	1,880 83	
Nails and spikes . . .	80 88	
Ironwork . . .	99 87	
Paint-stock . . .	84 60	
Calking . . .	64 35	
Hardware . . .	3 05	
Boat-stock . . .	12 54	
Cement and sand . . .	12 40	
	<hr/>	\$2,746 99

## Regular expenses :

Draw-tenders . . .	\$6,870 17	
Coal . . .	230 40	
Watering . . .	250 00	
Gas . . .	28 35	
Bedding . . .	41 50	
Water . . .	22 50	
Small supplies . . .	78 99	
	<hr/>	7,021 91

\$9,768 90

**Cambridge-street bridge** (from Brighton to Cambridge).

Rebuilt end of pier, new top laid, hard-pine capping and new iron bands, waterway repaired, extra gears attached to hoisting-machinery of draw.

Carpenters . . .	\$511 01	
Lumber . . .	444 87	
Nails and spikes . . .	7 00	
Ironwork . . .	242 46	
Car-fares . . .	8 90	
Teaming . . .	24 00	
Driving piles . . .	75 00	
	<hr/>	\$1,313 24

## Regular expenses :

Draw-tender . . .	\$400 71	
Coal . . .	7 52	
Small supplies . . .	17 80	
	<hr/>	426 03

1,739 27

**Charles-river bridge** (from Boston to Charlestown) :

Built shed on pier for storage, put new trucks in place twice, repaired machinery, put new water-pipes in stable, and placed the same in box covering, painted boat, general repairs on engine, new smoke-stack, and sheathed draw twice.

Carpenters . . .	\$1,579 58	
Painters . . .	22 50	
Lumber . . .	521 86	

*Carried forward,*      \$2,123 94

\$11,508 17



<i>Brought forward,</i>	\$2,128 94	\$11,508 17
Nails and spikes . . .	7 98	
Ironwork . . .	299 02	
Paint-stock . . .	3 45	
Plumbing . . .	250 00	
Hardware . . .	12 85	
Smoke-stack . . .	14 50	
	<hr/>	\$2,711 74

Regular expenses :		
Draw-tenders . . .	\$5,387 50	
Coal . . .	464 40	
Watering . . .	250 00	
Gas . . .	80 55	
Furniture and bedding . . .	62 35	
Cordage . . .	234 79	
Water . . .	23 50	
Oil . . .	22 02	
Salt . . .	11 00	
Small supplies . . .	42 66	
	<hr/>	6,528 77

9,240 51

**Chelsea bridge [North] (over North channel, Mystic river).**

Sheathed draw, repaired waterway, painted top and underside of bridge one coat, house painted inside and out, boat repaired and painted, new sidewalk on draw, new steps from draw to pier, and reset buoy.

Carpenters . . .	\$546 00	
Painters . . .	326 00	
Lumber . . .	189 93	
Nails and spikes . . .	3 75	
Ironwork . . .	69 39	
Paint-stock . . .	86 87	
Boat-stock . . .	4 60	
Setting buoy . . .	56 00	
	<hr/>	\$1,282 54

Regular expenses :		
Draw-tenders . . .	\$3,059 76	
Feed . . .	107 36	
Coal . . .	24 15	
Horse-shoeing . . .	19 25	
Gas . . .	34 51	
Woollen carpet . . .	20 93	
Water . . .	4 50	
Veterinary service . . .	5 00	
Repairing harness . . .	7 90	
Small supplies . . .	49 08	
	<hr/>	3,332 44

4,614 98

*Carried forward,*

Digitized by **\$25,363 66**

*Brought forward,*

\$25,368 66

**Chelsea bridge** [South] (over South channel, Mystic river).

Sheathed draw, new oak headers, reslated draw-tenders' house, painted top of bridge one coat, underside two coats, draw-tenders' house, outside, one coat, inside painted and varnished.

Carpenters . . .	\$478 07
Painters . . .	492 50
Lumber . . .	245 74
Nails and spikes . . .	11 25
Ironwork . . .	85 64
Paint-stock . . .	101 79
Plumbing . . .	5 00
Slating . . .	41 25
	<hr/>
	\$1,461 24

Regular expenses :

Draw-tenders . . .	\$3,059 76
Feed . . .	119 97
Coal . . .	19 20
Horse-shoeing . . .	37 50
Gas . . .	38 52
Bedding . . .	15 00
Water . . .	11 25
Repairing harness . . .	17 40
Small supplies . . .	60 98
	<hr/>
	3,379 58
	<hr/>

4,840 82

**Chelsea-street bridge** (from East Boston to Chelsea).

Replanked draw, repaired sheathing on roadway, and painted top of bridge two coats.

Carpenters . . .	\$114 33
Painters . . .	59 00
Lumber . . .	170 12
Nails and spikes . . .	6 75
Ironwork . . .	6 85
Paint-stock . . .	49 90
Car-fares . . .	10 32
Teaming . . .	2 00
	<hr/>
	\$419 27

Regular expenses :

Draw-tender . . .	\$327 75
Small supplies . . .	5 55
	<hr/>
	333 30
	<hr/>

752 57

*Carried forward,*

\$30,957 05

*Brought forward,*  
**Commercial Point, or Tenean bridge (Dorchester).**

\$30,957 05

Made new flaps for draw, and extensive repairs made on hoisting-gear.

Carpenters . . .	\$46 00	
Lumber . . .	9 02	
Ironwork . . .	249 69	
Car-fares . . .	2 50	
	<hr/>	\$307 21

Regular expenses :

Draw-tender . . . . .	50 00	
	<hr/>	

357 21

**Congress-street bridge (over Fort-Point channel).**

Sheathed draw twice, repaired stringers under draw, repaired machinery, painted buildings and bridge, general repairs on engine and boilers, and repaired concrete sidewalk.

Carpenters . . .	\$961 90	
Painters . . .	595 75	
Lumber . . .	575 27	
Nails and spikes . . .	9 00	
Ironwork . . .	721 85	
Paint-stock . . .	119 82	
Hardware . . .	11 90	
Teaming . . .	18 00	
Repairing concrete walk .	21 66	
Two new pier signs .	12 00	
	<hr/>	\$3,047 15

Regular expenses :

Draw-tenders . . .	\$6,042 16	
Coal . . .	307 80	
Watering . . .	125 00	
Furniture and bedding .	27 40	
Water . . .	100 44	
Small supplies . . .	87 19	
	<hr/>	6,689 99

9,737 14

**Dover-street bridge (over Fort-Point channel).**

Repaired deck, sidewalks, fender-guards, and waterway, sheathed draws twice, put in three new sets of trucks, repaired road-gates, and put in oak sleepers under track rails, built new chimney on house, new plumbing in house and stable.

Carpenters . . .	\$1,409 61	
Painters . . .	10 00	
Lumber . . .	269 90	
Nails and spikes . . .	6 00	
Ironwork . . .	813 38	
	<hr/>	

*Carried forward,*      \$2,508 89

Digitized by \$11,051 40

## STREET DEPARTMENT.

145

<i>Brought forward,</i>	\$2,508 89	\$41,051 40
Paint-stock . . .	3 44	
Plumbing . . .	438 00	
Hardware . . .	10 30	
New chimney . . .	31 00	
	<hr/>	

\$2,991 63

## Regular expenses :

Draw-tenders . . .	\$4,917 96	
Feed . . .	229 73	
Coal . . .	22 45	
Horse-shoeing . . .	26 00	
Watering . . .	125 00	
Gas . . .	32 68	
Water . . .	13 50	
Repairing harness . . .	6 35	
Small supplies . . .	103 72	
	<hr/>	

5,477 89

8,469 02

**Essex-street bridge** (from Brighton to Cambridge).

Sheathed roadway, laid new sidewalk, and repaired latches.

Carpenters . . .	\$283 50	
Lumber . . .	246 37	
Nails and spikes . . .	7 00	
Ironwork . . .	12 53	
Car-fares . . .	20 40	
	<hr/>	

\$569 80

## Regular expenses :

Draw-tender . . .	\$721 62	
Coal . . .	7 27	
Repairs on stove . . .	6 60	
Small supplies . . .	1 31	
	<hr/>	

736 80

1,306 60

**Federal-street bridge** (over Fort-Point channel).

Adjusted draws and made small repairs.

Carpenters . . .	\$234 37	
Ironwork . . .	6 46	
Hardware . . .	5 98	
New signs for road-gates, . . .	10 50	
Teaming old iron . . .	24 00	
	<hr/>	

\$281 31

## Regular expenses :

Draw-tenders . . .	\$5,757 07	
Feed . . .	17 43	
Coal . . .	126 44	
Horse-shoeing . . .	4 00	
Watering . . .	125 00	
	<hr/>	

*Carried forward,*

\$6,029 94

\$281 31

\$50,827 02

<i>Brought forward,</i>	\$6,029 94	\$281 31	\$50,827 02
Gas . . . . .	9 80		
Furniture and bedding . . . . .	64 12		
Cordage . . . . .	21 36		
Water . . . . .	44 76		
Small supplies . . . . .	125 10		
	<hr/>	6,294 58	
		<hr/>	6,575 89

**Granite bridge (from Dorchester to Milton).**

Repaired sheathing and latches on the draw.

Carpenters . . . . .	\$6 25		
Lumber . . . . .	4 43		
	<hr/>	\$10 68	

**Regular expenses :**

Draw-tender . . . . .	\$262 20		
Small supplies . . . . .	2 77		
	<hr/>	264 97	

275 65

**Malden bridge (from Charlestown to Everett).**

Sheathed draw, put in new oak headers, repaired machinery, adjusted draw, located buoy-stone, and repaired and painted boat.

Carpenters . . . . .	\$322 86		
Painters . . . . .	7 50		
Lumber . . . . .	22 75		
Ironwork . . . . .	69 75		
Paint-stock . . . . .	2 00		
Car-fares . . . . .	12 85		
Finding buoy-stone . . . . .	25 00		
	<hr/>	\$462 21	

**Regular expenses :**

Draw-tenders . . . . .	\$2,386 87		
Coal . . . . .	9 95		
Watering . . . . .	165 00		
Gas . . . . .	7 36		
Water . . . . .	9 00		
Repairs on stove . . . . .	5 60		
Small supplies . . . . .	20 53		
	<hr/>	2,554 31	

3,016 52

**Meridian-street bridge (from East Boston to Chelsea).**

Sheathed draw, put in new oak headers, new rack, and new pinion gear, repaired stable and water-way, painted top and underside of bridge, also painted buildings two coats, water-pipes repaired, duplicate parts of machinery placed on bridge, and reset buoy.

Carpenters . . . . .	\$544 63		
Painters . . . . .	501 75		

*Carried forward,* **\$1,046 38**

Digitized by  **\$60,695 08**

<i>Brought forward,</i>	\$1,046 38	\$60,695 08
Lumber . . . .	159 50	
Nails and spikes . . . .	4 50	
Ironwork . . . .	230 04	
Paint-stock . . . .	182 95	
Car-fares . . . .	56 04	
Plumbing . . . .	295 86	
Resetting buoy . . . .	54 65	
	<hr/>	\$2,029 92

Regular expenses :		
Draw-tenders . . . .	\$2,994 01	
Feed . . . .	131 00	
Coal . . . .	30 10	
Horse-shoeing . . . .	25 75	
Gas . . . .	27 00	
Bedding . . . .	11 45	
Cordage . . . .	3 48	
Water . . . .	9 00	
New horse for turning		
draw . . . .	250 00	
New stove . . . .	23 90	
Small supplies . . . .	55 88	
	<hr/>	3,561 57

5,591 49

**Mt. Washington-avenue bridge (over Fort-Point channel).**

All woodwork on draw rebuilt, new stringers, deck, guards, oak centre, sidewalks, fences; also deck calked. Added a story on draw-tender's house, containing three rooms, put in new water-closet and new plumbing, repaired sidewalk on bridge, also waterway, painted under-side and top of bridge two coats, buildings inside and out two coats, repaired and painted boat.

Carpenters . . . .	\$1,997 69	
Painters . . . .	480 75	
Lumber . . . .	1,459 60	
Nails and spikes . . . .	58 77	
Ironwork . . . .	368 07	
Paint-stock . . . .	93 16	
Plumbing . . . .	198 75	
Calking . . . .	123 80	
Hardware . . . .	23 16	
Plastering . . . .	80 00	
New chimney . . . .	38 85	
Roofers' bill . . . .	56 20	
	<hr/>	\$4,983 80

Regular expenses :		
Draw-tenders . . . .	\$5,393 49	
Coal . . . .	38 00	

*Carried forward,* \$5,431 49 \$4,983 80 \$66,286 57

<i>Brought forward,</i>	\$5,431 49	\$4,983 80	\$66,286 57
Watering . . . .	125 00		
Gas . . . . .	24 15		
Furniture and bedding . .	70 12		
Water . . . . .	4 50		
Rent of land two years . .	120 00		
New stove . . . .	21 35		
Small supplies . . . .	49 18		
	<hr/>	5,845 79	

10,829 59

**Neponset bridge (from Dorchester to Quincy).**

Laid new top on easterly pier, repaired waterway and hoisting machinery, and rebuilt new sidewalk.

Carpenters . . . .	\$404 91		
Lumber . . . . .	307 54		
Nails and spikes . . . .	18 50		
Ironwork . . . . .	329 60		
Car-fares . . . . .	22 36		
Hardware . . . . .	1 20		
	<hr/>	\$1,084 11	

**Regular expenses:**

Draw-tender . . . .	437 19		
	<hr/>		

1,521 30

**North Beacon-street bridge (from Brighton to Watertown).**

Sheathed roadway and draw.

Carpenters . . . .	\$60 50		
Lumber . . . . .	153 60		
Nails and spikes . . . .	3 20		
	<hr/>	\$217 30	

**Regular expenses:**

Draw-tender . . . .	82 08		
	<hr/>		

299 38

**North Harvard-street bridge (from Brighton to Cambridge).**

Repaired waterway and built new house on pier for draw-tender.

Carpenters . . . .	\$181 00		
Painters . . . . .	7 50		
Lumber . . . . .	114 11		
Nails and spikes . . . .	1 87		
Ironwork . . . . .	77 08		
Paint-stock . . . . .	2 00		
Car-fares . . . . .	3 00		
	<hr/>	\$386 56	

**Regular expenses:**

Draw-tender . . . .	\$400 71		
Small supplies . . . .	1 75		
	<hr/>	402 46	

789 02

*Carried forward,*

Digitized by Google  
\$79,725 86

*Brought forward,*

\$79,725 86

**Warren bridge** (from Boston to Charlestown).

Sheathed draws three times, placed new iron ladder in engine-house, repaired machinery and engines, repaired fender-guards, road-gates, and fence, painted underside and top of bridge, and all buildings two coats, and put in new cables.

Carpenters . . .	\$929 46	
Painters . . .	675 00	
Lumber . . .	340 01	
Nails and spikes . . .	6 75	
Ironwork . . .	260 18	
Paint-stock . . .	18 46	
Plumbing . . .	2 15	
Wire rope . . .	38 77	
	<hr/>	\$2,270 78

## Regular expenses:

Draw-tenders . . .	\$5,792 34	
Coal . . .	577 80	
Watering . . .	375 00	
Gas . . .	68 81	
Bedding . . .	7 50	
Water . . .	45 00	
Small supplies . . .	82 21	
	<hr/>	6,948 66

9,219 44

**Western-avenue bridge** (from Brighton to Cambridge).

Repaired sheathing on roadway and draw.

Carpenters . . .	\$93 46	
Lumber . . .	105 57	
Nails and spikes . . .	4 60	
Ironwork . . .	8 78	
Car-fares . . .	1 40	
	<hr/>	\$213 81

## Regular expenses:

Draw-tender . . .	\$400 71	
Coal . . .	4 85	
Small supplies . . .	1 75	
	<hr/>	407 31

621 12

**Western-avenue bridge** (from Brighton to Watertown).

Put in new deck and sheathed roadway and draw.

Carpenters . . .	\$156 52	
Lumber . . .	193 45	
Nails and spikes . . .	11 80	
Ironwork . . .	4 00	
Car-fares . . .	11 60	
	<hr/>	\$377 37

*Carried forward,*


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\$377 37      \$89,566 42

Digitized by Google



<i>Brought forward,</i>		\$377 37	\$89,566 42
Regular expenses :			
Draw-tender . . .	\$82 08		
Small supplies . . .	1 25		
	<u>          </u>	83 33	

460 70

**Winthrop bridge (from Breed's Island to Winthrop).****Repaired wheel-guards.**

Carpenters . . .	\$35 00		
Ironwork . . .	4 80		
	<u>          </u>	\$39 80	

**Regular expenses :**

Draw-tender . . .	\$100 00		
Small supplies . . .	2 50		
	<u>          </u>	102 50	

142 30

**Sundry expenditures on tide-water bridges :**

Building sanitary boxes .	\$182 10		
Sundry car-fares . . .	202 86		
Repairing boats . . .	60 00		
City Engineer, horse-hire for . . . . .	17 50		
City Engineer, use of steam-launch . . .	48 00		
	<u>          </u>	\$510 46	

**Regular expenses :**

Chief draw-tender (9 months) . . .	\$1,350 00		
Messenger (9 months) .	598 26		
Counting traffic . . .	62 50		
Sundry bridge supplies .	201 89		
	<u>          </u>	2,212 65	

2,723 11

Total expended on tide-water bridges . . . \$92,892 53

## RECAPITULATION.

*Table showing Expenditures on the Tide-water Bridges for the Year ending Feb. 1, 1892.*

NAME OF BRIDGE.	Repairs, labor, lumber, ironwork, and painting.	Regular ex- penses, salaries, fuel, and supplies.	Total.
Broadway.....	\$2,746 99	\$7,021 91	\$9,768 90
Cambridge-street .....	1,313 24	426 03	1,739 27
Charles-river.....	2,711 74	6,528 77	9,240 51
Chelsea (North).....	1,282 54	3,332 44	4,614 98
Chelsea (South).....	1,461 24	3,379 58	4,840 82
Chelsea-street.....	419 27	333 30	752 57
Commercial-point .....	307 21	50 00	357 21
Congress-street.....	3,047 15	6,689 99	9,737 14
Dover-street .....	2,991 63	5,477 39	8,469 02
Essex-street.....	569 80	736 80	1,306 60
Federal-street .....	281 31	6,294 58	6,575 89
Granite .....	10 68	264 97	275 65
Malden .....	462 21	2,554 31	3,016 52
Meridian-street.....	2,029 92	3,561 57	5,591 49
Mt. Washington-avenue.....	4,983 80	5,845 79	10,829 59
Neponset .....	1,084 11	437 19	1,521 30
North Beacon-street .....	217 30	82 08	299 38
North Harvard-street .....	386 56	402 46	789 02
Warren.....	2,270 78	6,948 66	9,219 44
Western-avenue (to Cambridge)..	213 81	407 31	621 12
Western-avenue (to Watertown)..	377 37	83 38	460 70
Winthrop.....	39 80	102 50	142 30
Chief draw-tender, and sundry ex- penditures .....	510 46	2,212 65	2,723 11
Totals.....	\$29,718 92	\$63,173 61	\$92,892 53

## INLAND BRIDGES.

**Albany-street bridge** (over Boston & Albany Railroad).

Sheathed roadway and painted top of bridge.

Carpenters	.	.	.	.	.	\$128 75
Painters	.	.	.	.	.	320 50
Lumber	.	.	.	.	.	132 28
Nails	.	.	.	.	.	3 00
Paint-stock	.	.	.	.	.	29 70

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\$614 23**Ashland-street bridge** (over Old Colony Railroad, Providence Division).

Sheathed roadway.

Carpenters	.	.	.	.	.	\$43 12
Lumber	.	.	.	.	.	97 92
Nails	.	.	.	.	.	2 35

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143 39**Baker-street bridge** (over brook, near Cow Island, West Roxbury).

Repaired sheathing on roadway.

Carpenters	.	.	.	.	.	\$16 00
Lumber	.	.	.	.	.	21 26
Nails	.	.	.	.	.	2 25

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39 51**Beacon-street bridge** (over Boston & Albany Railroad).

Sheathed roadway.

Carpenters	.	.	.	.	.	\$97 01
Lumber	.	.	.	.	.	159 35
Nails	.	.	.	.	.	3 90
Car-fares	.	.	.	.	.	10 65

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270 91**Berkeley-street bridge** (over Old Colony Railroad, Providence Division).

Sheathed roadway.

Carpenters	.	.	.	.	.	\$196 50
Lumber	.	.	.	.	.	493 15
Nails	.	.	.	.	.	9 00

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698 65**Boylston-street bridge** (over Boston & Albany Railroad).

Sheathed westerly roadway in 1890, paid for stock this year.

Carpenters	.	.	.	.	.	\$4 69
Lumber	.	.	.	.	.	136 96
Sand	.	.	.	.	.	1 75

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143 40*Carried forward,*

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\$1,910 09

*Brought forward,* \$1,910 00  
**Broadway bridge** (over Boston & Albany Railroad).

Sheathed roadway, and repaired deck where defective.

Carpenters	.	.	.	.	.	\$58 50
Lumber	.	.	.	.	.	75 69
Nails	.	.	.	.	.	2 40

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186 59

**Canterbury-street bridge** (over Stony Brook).  
 Repaired sheathing where defective :

Carpenters	.	.	.	.	.	\$22 50
Lumber	.	.	.	.	.	39 83
Nails (from stock).						

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62 33

**Central-avenue bridge** (from Dorchester to Milton).

Repaired sheathing, and painted fences on the bridge.

Carpenters	.	.	.	.	.	\$13 75
Painters	.	.	.	.	.	28 75
Lumber	.	.	.	.	.	9 10
Paint	.	.	.	.	.	71 10
Nails (from stock).						
Teaming	.	.	.	.	.	4 00

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126 70

**Columbus-avenue bridge** (over Boston & Albany Railroad).

Sheathed roadway.

Carpenters	.	.	.	.	.	\$46 62
Lumber	.	.	.	.	.	85 64
Nails	.	.	.	.	.	2 15

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133 41

**Commonwealth-avenue bridge** (over outlet to Back Bay).

Sheathed roadway.

Carpenters	.	.	.	.	.	\$82 62
Lumber	.	.	.	.	.	143 43
Nails	.	.	.	.	.	4 60
Car-fares	.	.	.	.	.	7 50

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238 15

**Cottage-street (foot) bridge** (from Jeffries Point to Wood Island).

Painted part of bridge fence.

Painters	.	.	.	.	.	\$264 25
Paint-stock	.	.	.	.	.	44 20
Watchman (permanently employed)	.					798 00

*Carried forward,*

\$1,106 45

\$2,607 27

<i>Brought forward,</i>	\$1,106 45	\$2,607 27
Coal . . . . .	5 10	
Stove . . . . .	7 54	
	<hr/>	1,119 09

**Dartmouth-street bridge** (over Boston & Albany, and Providence Division of Old Colony Railroad).

Sheathed roadway and painted top of bridge one coat.

Carpenters . . . . .	\$85 25	
Painters . . . . .	398 75	
Lumber . . . . .	176 37	
Nails . . . . .	6 60	
Paint-stock . . . . .	79 63	
	<hr/>	746 60

**Dorchester-street bridge** (over Old Colony Railroad, Central Division).

Roadway sheathed by Old Colony Railroad Company, the City paying for its share, one-fifth . . . . . 11 93

**Ferdinand-street bridge** (over Boston & Albany Railroad).

Services of watchman to guard the bridge after it was condemned by the City Engineer, and before the rebuilding of the same was commenced . . . . . 255 00

**Gardner-street bridge** (over brook, near Cow Island, West Roxbury).

New structure built.

Carpenters . . . . .	\$150 88	
Lumber . . . . .	70 43	
Nails . . . . .	2 25	
Gravel . . . . .	9 50	
Car-fares . . . . .	21 40	
	<hr/>	254 46

**Huntington-avenue bridge** (over Boston & Albany Railroad).

Repaired sheathing on roadway.

Carpenters . . . . .	\$59 50	
Lumber . . . . .	97 10	
Nails . . . . .	3 15	
	<hr/>	159 75

**Hyde Park-avenue bridge** (over Stony brook).

Repaired sheathing on roadway.

Carpenters . . . . .	\$11 50	
Lumber . . . . .	31 01	
Nails . . . . .	1 20	
	<hr/>	43 71

*Carried forward,*

**\$5,197 81**

*Brought forward,* \$5,197 81  
**Mattapan bridge** (from Dorchester to Milton).  
 Repaired sheathing.

Carpenters . . . . .	\$22 25
Lumber . . . . .	13 91
Nails (from stock).	

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 36 16

**Shawmut-avenue bridge** (over Boston & Albany Railroad).

Sheathed roadway and repaired sidewalk.

Carpenters . . . . .	\$76 13
Lumber . . . . .	116 52
Nails . . . . .	3 50
Cement . . . . .	2 75

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 198 90

**Summer-street bridge** (near Spring-street station, West Roxbury).

New deck laid, sheathed roadway, built new sidewalk and fence.

Carpenters . . . . .	\$8 75
Lumber . . . . .	18 41
Nails (from stock).	

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 27 16

**Swett-street bridge** (east of New York & New England Railroad).

Sheathed roadway.

Carpenters . . . . .	\$188 52
Lumber . . . . .	140 95
Nails . . . . .	4 60

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 334 07

**Swett-street bridge** (west of New York & New England Railroad).

Strengthened the entire structure underneath, according to plans of City Engineer, and sheathed roadway.

Carpenters . . . . .	\$550 81
Lumber . . . . .	282 35
Nails and spikes . . . . .	10 92
Ironwork . . . . .	6 60
Car-fares . . . . .	4 50
Rubber boots . . . . .	16 00
Repairs on portable tool-house . . . . .	7 45

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 878 63

**Texas-street bridge** (over Stony Brook).

New deck, new stringers where defective, and new sidewalks.

Carpenters . . . . .	\$26 50
Lumber . . . . .	26 24
Nails . . . . .	1 25

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 53 99

*Carried forward,*

**\$6,726 72**

<i>Brought forward,</i>		\$6,726 72
<b>West Chester-park bridge</b> (over Old Colony railroad, Providence Division).		
Sheathed roadway.		
Carpenters . . . . .	\$38 88	
Lumber . . . . .	76 97	
Nails . . . . .	2 60	
		118 45
<b>West Newton-street bridge</b> (over Old Colony Railroad, Providence Division).		
Sheathed roadway and repaired sidewalks.		
Carpenters . . . . .	\$34 50	
Lumber . . . . .	75 01	
Nails . . . . .	2 20	
		111 71
Sundry expenditures on inland bridges :		
Labor, removing snow . . . . .	\$979 75	
" bridge cleaner . . . . .	388 49	
Sand for slippery walks . . . . .	26 63	
		1,394 87
<b>Total . . . . .</b>		<b><u>\$8,351 75</u></b>

## RECAPITULATION.

*Table showing Expenditures on the Inland Bridges during the Year ending Feb. 1, 1892.*

Name of Bridge.	Repairs, labor, lumber, iron- work, and painting.
Albany-street . . . . .	\$614 23
Ashland-street . . . . .	143 39
Baker-street . . . . .	89 51
Beacon-street (over B. & A. R.R.) . . . . .	270 91
Berkeley-street (over Providence Division, O. C. R.R.) . . . . .	698 65
Boylston-street (over B. & A. R.R.) . . . . .	143 40
Broadway (over B. & A. R.R.) . . . . .	136 59
Canterbury-street . . . . .	62 33
Central-avenue . . . . .	126 70
Columbus-avenue . . . . .	133 41
Commonwealth-avenue (over Outlet) . . . . .	238 15
Cottage-street . . . . .	1,119 09
Dartmouth-street . . . . .	746 60
Dorchester-street . . . . .	11 93
Ferdinand-street . . . . .	255 00
Gardner-street . . . . .	254 46
Huntington-avenue . . . . .	159 75
Hyde Park-avenue . . . . .	43 71
Mattapan . . . . .	36 16
Shawmut-avenue . . . . .	198 90
Summer-street . . . . .	27 16
Swett-street (East) . . . . .	334 07
Swett-street (West) . . . . .	878 63
Texas-street . . . . .	53 99
West Chester-park (over Providence Division, O. C. R R.) . . . . .	118 45
West Newton-street . . . . .	111 71
Sundry expenditures . . . . .	1,394 87
Total . . . . .	<u>\$8,351 75</u>



# REGULAR MAINTENANCE EXPENSES AT NORTH AND SOUTH YARDS.

## NORTH YARD, DISTRICT No. 1.

### *Charles-River Bridge.*

Messenger . . . . .	\$644 28	
Watchman . . . . .	545 00	
Repairing buildings . . . . .	283 39	
Painting signs . . . . .	9 52	
Tools for carpenters . . . . .	162 28	
Tools for painters . . . . .	81 32	
Bridge flags . . . . .	96 00	
Supplies . . . . .	70 04	
Telephone . . . . .	116 33	
Stock, lumber, nails, and paint . . . . .	80 70	
		<hr/>
		\$2,088 86

### *Stable, District No. 1.*

Teamster . . . . .	\$587 50	
Hostler . . . . .	296 50	
Feed . . . . .	231 43	
Repairs on buggy . . . . .	3 95	
“ “ wagons . . . . .	131 70	
Horse-shoeing . . . . .	34 75	
Harness and repairs . . . . .	91 80	
Supplies . . . . .	142 41	
New buggy . . . . .	200 00	
Bay horse . . . . .	325 00	
“ “ . . . . .	200 00	
Veterinary services . . . . .	21 00	
Horse-clipping . . . . .	3 00	
		<hr/>
		2,269 04

Amount expended North Yard and Stable, \$4,357 90

## SOUTH YARD, DISTRICT No. 2.

### *Foundry Street.*

Messenger . . . . .	\$644 28	
Yardman . . . . .	515 75	
Watchman . . . . .	562 50	
Repairing buildings . . . . .	97 19	
Making street-horses . . . . .	64 97	
Painting signs . . . . .	33 25	
Tools for carpenters . . . . .	268 45	
Tools for painters . . . . .	72 49	
Bridge flags . . . . .	93 80	
		<hr/>

Carried forward, \$2,352 68

## STREET DEPARTMENT.

159

<i>Brought forward,</i>	\$2,352 68
Supplies . . . . .	75 97
Telephone . . . . .	120 00
Stock, lumber, nails, and paint . . . . .	136 94
	<hr/>
	\$2,685 59

*Stable, District No. 2.*

Teamster . . . . .	\$873 12
Hostler . . . . .	590 00
Feed . . . . .	321 50
Repairs on buggy . . . . .	96 15
“ “ wagons . . . . .	144 20
Horse-shoeing . . . . .	119 25
Harness and repairs . . . . .	187 50
Supplies . . . . .	62 23
New buggy . . . . .	275 00
“ wagon . . . . .	200 00
Brown horse . . . . .	325 00
Gray horse . . . . .	250 00
Veterinary services . . . . .	30 00
Horse-clipping . . . . .	5 00
Use of horse . . . . .	85 83
“ “ buggy . . . . .	20 00
	<hr/>
	3,584 78

Amount expended South Yard and Stable, \$6,270 37

Total amount expended at North and South Yards, \$10,628 27

## SPECIAL APPROPRIATIONS.

**Berkeley-street bridge** (over Boston & Albany Railroad).

Building new iron bridge, parapets and bridge seats.  
(work in progress).

Bridge seats and parapets . . . . .	\$2,084 86
Iron bridge structure . . . . .	4,898 00
Carpenters . . . . .	998 34
Painters . . . . .	224 00
Inspector . . . . .	170 00
Iron bolts . . . . .	11 88
Advertising and specifications . . . . .	106 10
Hand-stamp . . . . .	3 00

Expended Jan. 31, 1892 . . . . . \$8,496 18

Balance . . . . . 9,503 82

Appropriation . . . . . \$18,000 00

**Chelsea bridge, steam apparatus.** New engines, boilers, etc., new motive power for the North and South draws of Chelsea bridge.

(Work in progress.)

Carpenters . . . . .	\$1,855 95
Painters . . . . .	187 00
Lumber . . . . .	1,056 53
Nails . . . . .	19 93
Paint . . . . .	19 75
Bolts, washers, straps, etc. . . . .	170 89
Six iron tanks . . . . .	60 00
Hose . . . . .	14 60
One double engine and boiler, North draw . . . . .	660 00
One double engine and boiler, South draw . . . . .	745 00
Angle-irons, wire rope, sheave, etc., North draw . . . . .	589 00
Groove, steel chain, brackets, etc., South draw . . . . .	1,192 00
Foundation to engine-house, North draw . . . . .	919 70
Engineers' rolls . . . . .	270 84
Advertising . . . . .	4 26
Sand and cement . . . . .	3 00

Expended Jan. 31, 1892 . . . . . \$7,768 45

Balance . . . . . 4,231 55

Appropriation . . . . . \$12,000 00

**Cornwall street, laying out and constructing.**  
**Cornwall-street bridge** (over Stony Brook, Ward 23). Building new wooden bridge (completed).

Carpenters . . . . .	\$657 50
Lumber . . . . .	554 63
Nails . . . . .	5 35
Ironwork . . . . .	312 99
Hardware . . . . .	6 99
Car-fares . . . . .	10 70

Amount expended as per books of this division . \$1,548 16

**Irvington-street (foot) bridge** (over Providence Division, Old Colony Railroad).

Building new iron foot-bridge, new abutment and painting old one (completed).

Advertising and specifications . . . . .	\$101 34
Inspector . . . . .	145 00
Building new retaining-wall . . . . .	3,472 00
Painting old retaining-wall . . . . .	50 00
Iron foot-bridge complete . . . . .	1,773 00

Amount expended as per books of this division . \$5,541 34

**Milton bridge, repairing.** Milton bridge (over Neponset river, from Dorchester to Milton).

**Making general repairs (completed).**

Carpenters . . . . .	\$631 35
Painters . . . . .	87 50
Lumber . . . . .	1,175 52
Nails . . . . .	3 86
Ironwork . . . . .	20 50
Paint . . . . .	4 85
Graving, etc. . . . .	75 26
Car-fares . . . . .	62 50

Amount expended as per books of this division .	<u>\$2,061 34</u>
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# I. — BRIDGES WHOLLY SUPPORTED BY BOSTON.

In the list, those marked with an asterisk are over navigable waters, and are each provided with a draw.

Agassiz, in Back-Bay Fens.

Ashland street, Ward 23, over Old Colony Railroad, Providence Division.

Athens street, over N. Y. & N. E. Railroad.

Beacon entrance, Back-Bay Fens, over Boston & Albany Railroad.

Beacon street, over outlet to Back-Bay Fens.

Beacon street, over Boston & Albany Railroad.

Berkeley street, over Boston & Albany Railroad.

Berkeley street, over Old Colony Railroad, Providence Division.

Blakemore street, over Old Colony Railroad, Providence Division, Ward 23.

Bolton street, over N. Y. & N. E. Railroad.

Boylston street, over Boston & Albany Railroad.

Boylston street, over outlet to Back-Bay Fens.

\* Broadway, over Fort-Point Channel.

Broadway, over Boston & Albany Railroad.

Brookline avenue, over Boston & Albany Railroad.

Byron street, over Boston, Revere Beach, & Lynn Railroad.

\* Charles River, from Boston to Charlestown.

\* Chelsea (South), over South Channel, Mystic River.

\* Chelsea street, from East Boston to Chelsea.

Columbus avenue, over Boston & Albany Railroad.

\* Commercial Point, or Tenean, Ward 24.

Commonwealth avenue, over outlet to Back-Bay Fens.

\* Congress street, over Fort-Point Channel.

Cornwall street, over Stony Brook, Ward 23.

Cottage-street foot-bridge, from Jeffries Point to Wood Island.

Dartmouth street, over Boston & Albany, and Providence Division of Old Colony Railroad.

\* Dover street, over Fort-Point Channel.

\* Federal street, over Fort-Point Channel.

Ferdinand street, over Boston & Albany Railroad.

Franklin-street foot-bridge, over Boston & Albany Railroad.

Gold-street foot-bridge, over N. Y. & N. E. Railroad.

Huntington avenue, over Boston & Albany Railroad.

Irvington-street foot-bridge, over Old Colony Railroad, Providence Division.

Leyden street, over Boston, Revere Beach, & Lynn Railroad.

Linden Park street, over Stony Brook.

\* Malden, from Charlestown to Everett.

\* Meridian street, from East Boston to Chelsea.

\* Mt. Washington avenue, over Fort-Point Channel.

Neptune, over Boston, Revere Beach, & Lynn Railroad.

Public Garden foot-bridge.

Shawmut avenue, over Boston & Albany Railroad.

Swett street, east of N. Y. & N. E. Railroad.

Swett street, west of N. Y. & N. E. Railroad.

\* Warren, from Boston to Charlestown.

West Chester park, over Boston, & Albany Railroad.

West Chester park, over Old Colony Railroad, Providence Division.

West Newton street, over Old Colony Railroad, Providence Division.

West Rutland square foot-bridge, over Old Colony Railroad, Providence Division.

Winthrop, from Breed's Island to Winthrop.

## II. — BRIDGES OF WHICH BOSTON SUPPORTS THE PART WITHIN ITS LIMITS.

\* Cambridge street, from Brighton to Cambridge.

Central avenue, from Ward 24 to Milton.

\* Chelsea (North), from Charlestown to Chelsea.

\* Essex street, from Brighton to Cambridge.

\* Granite, from Dorchester, Ward 24, to Milton.

Longwood avenue, from Ward 22 to Brookline.

Mattapan, from Ward 24 to Milton.

Milton, from Ward 24 to Milton.

\* Neponset, from Ward 24 to Quincy.

\* North Beacon street, from Brighton to Watertown.

\* North Harvard street, from Brighton to Cambridge.

Spring street, from West Roxbury to Dedham.

\* Western avenue, from Brighton to Cambridge.

\* Western avenue, from Brighton to Watertown.

### III. — BRIDGES OF WHICH BOSTON PAYS A PART OF THE COST OF MAINTENANCE.

Albany street, over Boston & Albany Railroad.

Dorchester street, over Old Colony Railroad, Central Division.

\* Harvard, from Boston to Cambridge.

\* Canal, from Boston to Cambridge.

\* Prison Point, from Charlestown to Cambridge.

\* West Boston, from Boston to Cambridge.

The last three bridges are in the care of two Commissioners, who make an annual report to the City Council.

Harvard bridge is in the care of three Commissioners.

### IV. — BRIDGES SUPPORTED BY RAILROAD CORPORATIONS.

#### *1st. — Boston & Albany Railroad.*

Commonwealth avenue, Brighton.

Harrison avenue.

Market street, Brighton.

Tremont street.

Washington street.

#### *2d. — Boston & Maine Railroad, Eastern Division.*

Mystic avenue.

Main street.

#### *3d. — Boston & Maine Railroad, Western Division.*

Mystic avenue.

Main street.

#### *4th. — Boston, Revere Beach, & Lynn Railroad.*

Everett street.

#### *5th. — New York & New England Railroad.*

Dorchester avenue.

Harvard street, Ward 24.

Morton     "             "

Norfolk    "             "

Norfolk    "             "

Silver street.  
 Washington street, Ward 24.  
 West Broadway.  
 West Fifth street.  
 West Fourth street.  
 West Second street.  
 West Sixth street.  
 West Third street.

*6th. — Old Colony Railroad, Central Division.*

Adams street.  
 Ashmont street and Dorchester avenue.  
 Cedar Grove Cemetery.  
 Commercial street.  
 Savin Hill avenue.

*7th. — Old Colony Railroad, Providence Division.*

Beach street, Ward 23.  
 Bellevue street, Ward 23.  
 Canterbury street, Ward 23.  
 Centre street, or Hog Bridge, Ward 23.  
 Centre and Mt. Vernon streets, Ward 23.  
 Dudley avenue, Ward 23.  
 Park street, Ward 23.

RECAPITULATION.

I.	Number wholly supported by Boston . . . . .	49
II.	Number of which Boston supports the part with- in its limits . . . . .	14
III.	Number of which Boston pays a part of the cost of maintenance . . . . .	6
IV.	Number supported by railroad corporations :	
1.	Boston & Albany . . . . .	5
2.	Boston & Maine, Eastern Div. . . . .	2
3.	“ “ Western Div. . . . .	2
4.	Boston, Revere Beach, & Lynn . . . . .	1
5.	New York & New England . . . . .	13
6.	Old Colony, Central Div. . . . .	5
7.	“ “ Providence Div. . . . .	7
	Total number . . . . .	104

The existing regulations for the passage of vessels through drawbridges have been posted on the several bridges, as required by law.

The records of the number of draw-openings, vessels passing through the bridges, time of passage, kind of vessels, number laden with cargo, etc., as kept by the draw-tenders of the several bridges, have been tabulated, and the totals are given in the summary, which will be found in Appendices A1 and A10.

A list of widths of openings for vessels in all bridges provided with draws in the city, measurements being furnished by the City Engineer, will be found in Appendix A2.

Appendix A3 is a table, also made by the City Engineer, showing widths of bridges, kind of roadways, sidewalks, etc.

A list of culverts and small bridges will be found in Appendix A4.

Appendices A5, A6, and A7 contain tabulated statements of traffic.

Appendix A8 is a list of tools, etc., at North Yard.

Appendix A9 contains a list of tools, etc., at South Yard.



## APPENDIX A1.

## DRAW-TENDERS' REPORTS,

Giving the Number of Vessels passing through the Drawbridges controlled by the City of Boston, from January 1, 1891, to January 31, 1892, inclusive.

NAME OF BRIDGE.	STEAMERS.		SAILING-VESSELS.		TUGS.		ALL OTHERS.		TOTAL NO. VESSELS.			Total No. of Car- goes.	Total No. of Open- ings.				
	By Day.	By Night.	By Day.	By Night.	By Day.	By Night.	By Day.	By Night.	By Day.	By Night.	Total.						
Broadway .....	2	2	4	2,183	1,232	3,415	1,260	191	1,451	373	87	460	3,818	1,512	5,330	1,896	4,199
Cambridge Street ...	2	.....	2	320	5	325	747	28	775	294	20	314	1,363	53	1,416	299	841
Charles River.....	33	11	44	2,272	1,065	3,337	2,598	539	3,137	1,837	437	2,274	6,740	2,052	8,792	2,686	6,261
Chelsea (North) ....	112	12	124	900	93	993	3,882	317	4,199	2,410	156	2,566	7,304	578	7,882	1,883	4,919
Chelsea (South) ....	8	.....	8	985	63	1,048	3,158	207	3,365	1,640	65	1,705	5,791	985	6,126	1,137	4,366
Chelsea Street .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	32	.....	32	32	.....	32	5	33
Commercial Point....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	2	2	.....	2	.....	2
Congress Street .....	229	89	318	3,819	1,455	5,274	6,071	1,514	7,585	2,146	556	2,702	12,265	3,614	15,879	3,972	7,988

Dover Street .....	9	4	13	1,653	1,081	2,734	932	339	1,271	297	137	434	2,891	1,561	4,452	1,665	3,631
Essex Street .....	4	.....	4	388	15	403	997	57	1,054	463	78	541	1,852	146	1,998	280	1,113
Federal Street .....	2	.....	2	2,167	1,465	8,632	1,403	356	1,759	535	184	719	4,107	2,005	6,112	2,075	5,060
Granite Street .....	.....	.....	.....	92	8	100	206	13	219	36	1	37	384	22	356	66	222
Malden Street .....	2	.....	2	325	27	352	1,160	111	1,271	427	28	455	1,914	166	2,080	385	1,247
Meridian Street .....	70	24	94	700	82	782	2,391	289	2,680	1,068	142	1,210	4,229	537	4,766	689	2,751
Mt. Washington Ave.	73	22	95	2,799	1,411	4,210	4,142	937	5,079	1,549	381	1,930	8,563	2,751	11,314	3,165	8,183
Neponset .....	.....	.....	.....	155	12	167	213	24	237	.....	.....	.....	368	36	404	89	291
North Beacon Street .....	.....	.....	.....	.....	.....	.....	1	.....	1	.....	.....	.....	1	.....	1	.....	1
North Harvard Street .....	.....	.....	.....	136	2	138	237	6	243	22	1	23	395	9	404	78	234
Warren Street .....	30	17	47	1,495	1,716	3,211	1,550	555	2,105	1,384	461	1,845	4,459	2,749	7,208	2,451	5,007
Western Ave. to Cambridge .....	2	.....	2	234	2	236	573	18	591	257	21	278	1,066	41	1,107	236	642
Western Ave. to Watertown .....	.....	.....	.....	5	.....	5	18	.....	18	14	.....	14	37	.....	37	2	24
Totals .....	578	181	759	20,628	9,794	30,362	31,539	5,501	37,040	14,786	2,755	17,541	67,531	18,167	85,698	23,037	57,015

West Boston, Prison-Point, Canal (or Craigie's), and Harvard Bridges not included in these tables, being in the care of Commissioners representing the two cities (Boston and Cambridge) connected by these bridges.

## APPENDIX A2.

**Table showing the Widths of Openings for Vessels in all Bridges provided with Draws in the City of Boston, February, 1892.**

NAME OF BRIDGE.	Location.	Number of Openings.	Width.
Boston & Maine R.R., Eastern Division . . . . .	Boston to Charlestown .	1	35 feet 10 inches.
Boston & Maine R.R., Eastern Division . . . . .	Over Miller's river . . .	1	35 " 10 "
Boston & Maine R.R. (freight), Southern Division . . . . .	Boston to East Cambridge	1	35 " 8 "
Boston & Maine R.R. (passenger), Southern Division . . . . .	" " " "	1	35 " 10 "
Boston & Maine R.R., Western Division . . . . .	Boston to Charlestown .	1	35 " 5 "
Boston & Maine R.R., Western Division . . . . .	Over Miller's river . . .	1	35 " 9 "
Broadway . . . . .	Over Fort-Point channel,	1	43 " 3 "
Cambridge st. . . . .	Ward 25 to Cambridge .	1	36 " 3 "
Canal (or Craigie's) . . . . .	Boston to East Cambridge	1	35 " 10 "
Charles River . . . . .	Boston to Charlestown .	1	36 " 0 "
Chelsea (south channel) . . . . .	Charlestown to Chelsea,	1	38 " 10 "
Chelsea (north channel) . . . . .	" " "	1	44 " 10 "
Chelsea st. (East Boston side) . . .	East Boston to Chelsea .	2	33 " 1 "
" " (Chelsea side) . . . . .	" " " "	..	34 " 3 "
Commercial Point (or Tenean) . .	Ward 24 . . . . .	1	24 " 0 "
Congress st. (Boston side) . . . .	Over Fort-Point channel,	2	43 " 3 "
" " (South Boston side) . . . .	" " " "	..	43 " 11 "
Dover st. . . . .	" " " "	1	36 " 0 "
Essex st. . . . .	Ward 25 to Cambridge .	1	36 " 0 "
Federal st. . . . .	Over Fort-Point channel,	1	41 " 10 "
Fitchburg R.R. . . . .	Boston to Charlestown .	1	36 " 0 "
" " (forteaming freights)	" " "	1	35 " 11 "

Table showing Width of Openings, etc. — *Concluded.*

NAME OF BRIDGE.	Location.	Number of Openings.	Width.
Grand Junction R.R. . . . .	Ward 25 to Cambridge .	1	35 feet 7 inches.
“ “ “ . . . . .	East Boston to Chelsea .	1	34 “ 8 “
Granite . . . . .	Ward 24 to Milton . . .	1	36 “ 0 “
Harvard (Boston side) . . . . .	Boston to Cambridge .	2	36 “ 8 “
“ (Cambridge side) . . . . .	“ “ “ . . . . .	36	“ 8 “
Malden . . . . .	Charlestown to Everett .	1	43 “ 4 “
Meridian st. (East Boston side) . .	East Boston to Chelsea .	2	59 “ 2 “
“ “ (Chelsea side) . . . . .	“ “ “ “ . . . . .	59	“ 0 “
Mt. Washington ave. (Boston side)	Over Fort-Point channel	2	42 “ 1 “
“ “ “ (South Boston side) . . . . .	“ “ “ “ . . . . .	42	“ 4 “
Neponset . . . . .	Ward 24 to Quincy . .	1	36 “ 0 “
New York & New England R.R. (Boston side) . . . . .	Over Fort-Point channel	2	40 “ 4 “
New York & New England R.R. (South Boston side) . . . . .	“ “ “ “ . . . . .	40	“ 2 “
New York & New England R.R. . .	Over South Bay . . . .	1	28 “ 4 “
North Beacon st. . . . .	Ward 25 to Watertown .	1	30 “ 2 “
North Harvard st. . . . .	Ward 25 to Cambridge .	1	36 “ 0 “
Old Colony R.R. . . . .	Over Fort Point channel,	1	36 “ 0 “
“ “ “ . . . . .	Ward 24 to Quincy . .	1	36 “ 0 “
Prison Point . . . . .	Charlestown to Cam- bridge . . . . .	1	36 “ 0 “
Warren . . . . .	Boston to Charlestown .	1	36 “ 3 “
West Boston (Boston side) . . . .	Boston to Cambridge .	2	35 “ 8 “
“ “ (Cambridge side) . . . . .	“ “ “ . . . . .	36	“ 0 “
Western ave. . . . .	Ward 25 to Cambridge .	1	36 “ 0 “
“ “ . . . . .	Ward 25 to Watertown .	1	30 “ 0 “

## APPENDIX A3.

Table showing Width of Bridges, Kind of Roadways, Sidewalks, etc., on Tide-water Bridges, Jan. 28, 1892.

NAME OF BRIDGE.	Width of Bridge.	ROADWAY.		SIDEWALKS.		
		Width.	Kind of Roadway.	No.	Width.	Kind of walks.
	<i>Ft. In.</i>	<i>Ft. In.</i>			<i>Ft. In.</i>	
Broadway . . . . .	60 0	40 0	Plank . . . . .	2	10 0	Coal-tar concrete.
Cambridge street . . . . .	40 0	33 2	" . . . . .	1	6 0	Plank.
Canal . . . . .	64 0	48 0	Paved . . . . .	2	8 0	Brick.
Charles River . . . . .	50 0	34 0	" . . . . .	2	8 0	"
Chelsea, North . . . . .	49 0	40 0	" . . . . .	1	8 0	Coal-tar concrete.
" South . . . . .	50 0	37 0	" . . . . .	2	6 6	" "
" Street . . . . .	30 2	24 0	Plank . . . . .	1	5 6	Plank
Commercial Point . . . . .	about 34 0	about 32 0	" . . . . .	0	...	
Congress street . . . . .	60 0	44 0	Paved . . . . .	2	8 0	Coal-tar concrete.
Dover street . . . . .	59 0	43 0	" . . . . .	2	8 0	{ Part " }
Essex street . . . . .	31 0	22 8	Plank . . . . .	1	7 6	{ Part plank. }
Federal street . . . . .	69 0	49 0	Paved . . . . .	2	10 0	Asphalt.
Granite . . . . .	30 2	24 4	Plank . . . . .	1	5 0	Plank.
Harvard . . . . .	69 4	51 0	" . . . . .	2	9 2	Asphalt.
Malden . . . . .	40 0	32 0	Paved . . . . .	1	7 0	Coal-tar concrete.
Meridian street . . . . .	50 0	36 0	" . . . . .	2	7 0	" " "
Mt. Washington avenue . .	61 0	39 6	" . . . . .	2	10 9	" " "
Neponset . . . . .	30 0	23 10	Plank . . . . .	1	5 5	Plank.
North Beacon street . . .	31 0	25 2	" . . . . .	1	5 0	"
North Harvard street . .	28 2	26 7	" . . . . .	0	...	
Prison Point . . . . .	50 0	36 0	{ " part Paved part }	2	7 0	Coal-tar concrete.
Warren . . . . .	80 0	60 0	" . . . . .	2	10 0	" " "
W. avenue to Cambridge .	33 2	26 3	Plank . . . . .	1	6 0	Plank.
" " " Watertown . . .	26 10	26 10	" . . . . .	0	...	
Winthrop . . . . .	24 2	19 10	" . . . . .	1	3 7	Plank.
West Boston . . . . .	50 0	36 0	Paved . . . . .	2	7 0	Brick.

## APPENDIX A4.

List of Culverts and Small Bridges.  
Those marked with (\*) are over Stony Brook.

LOCATION.	Span. Feet.	Height of Opening. Feet.	Length. Feet.	Side-walls.	Covering.	Depth of cover'g. Feet.
Adams street, south of Park, Dorchester . . . . .	5.0	4.0	57	Stone . . . . .	Stone . . . . .	5.0
*Amory street, near Centre, West Roxbury . . . . .	each 9.0	each 8.0	35	Double stone arch	Stone . . . . .	8.0
*Ashland and Canterbury streets, West Roxbury . . . . .	7.0	4.0	25	Stone arch . . . . .	Stone . . . . .	3.0
*Ashland street and Canterbury, West Roxbury . . . . .	7.6	5.5	75	Stone . . . . .	Wood.	
Ashland street, near Florence, West Roxbury . . . . .	3.0	3.0	50	Stone . . . . .	Stone . . . . .	6.0
Ashland street, 200 feet from Canterbury, West Roxbury . . . . .	3.0	3.0	50	Stone . . . . .	Stone . . . . .	3.0
Back street, near Morton, Dorchester . . . . .	5.0	4.0	30	Stone . . . . .	Stone . . . . .	2.0
Baker street, at Brook farm, West Roxbury . . . . .	15.0	5.0	30	Stone . . . . .	Wood.	
Baker street, opposite Prospect avenue, West Roxbury . . . . .	2.67	2.67	60	Stone . . . . .	Stone . . . . .	1.0
Beech street, near Anawan avenue, West Roxbury . . . . .	4.0	4.0	50	Stone . . . . .	Wood.	
Beech street, near Poplar, West Roxbury . . . . .	1.5	2.5	40	Stone . . . . .	Stone . . . . .	5.0
Blue Hill avenue, Dorchester . . . . .	2.75	1.67	225	Stone . . . . .	Stone . . . . .	2.0
Blue Hill avenue, near Morton street, Dorchester . . . . .	9.0	7.0	60	Stone . . . . .	Wood.	
*Boylston avenue, West Roxbury . . . . .	15.0	9.5	30	Stone . . . . .	Wood.	

## List of Culverts and Small Bridges. — Continued.

LOCATION.	Span. Feet.	Height of Opening. Feet.	Length. Feet.	Side-walls.	Covering.	Depth of cover'g. Feet.
•Boylston street, at Boylston Station, West Roxbury . . . . .	each 7.0	9.9 & 8.0	47	Double brick arch.	Brick.	
Brighton avenue, west of Babcock street, Brighton . . . . .	3.5	3.0	50	Stone . . . . .	Stone . . . . .	1.25
Brighton avenue, west of Essex street, Brighton . . . . .	3.0	3.0	50	Wood . . . . .	Wood and earth.	8.0
Canterbury street, near Morton, West Roxbury . . . . .	2.0	3.0	40	Stone . . . . .	Stone . . . . .	4.0
•Canterbury street, near Neponset avenue, West Roxbury . . . . .	10.0	5.0	42	Stone arch . . . . .	Stone . . . . .	3.0
Canterbury street, near Poplar, West Roxbury . . . . .	2.5	2.5	50	Stone . . . . .	Stone . . . . .	8.5
Centre street, near Spring, West Roxbury . . . . .	4.0	4.0	50	Stone . . . . .	Stone . . . . .	3.0
Centre street, near Walter, West Roxbury . . . . .	2.5	3.0	50	Stone . . . . .	Stone . . . . .	5.0
Centre street, at Williams farm, West Roxbury . . . . .	4.0	4.0	50	Stone arch . . . . .	Stone . . . . .	4.0
Centre street, at Williams farm, West Roxbury . . . . .	1.5	3.0	50	Stone . . . . .	Stone . . . . .	5.0
Centre street, corner Willow, West Roxbury . . . . .	2.5	2.5	60	Stone . . . . .	Stone . . . . .	4.5
Church street, west of Weld, West Roxbury . . . . .	2.67	4.5	65	Stone . . . . .	Stone . . . . .	3.0
Coray street, near Highland Station, West Roxbury . . . . .	2.5	3.0	45	Stone . . . . .	Stone . . . . .	2.0
Everett street, near B. & A. R.R., Brighton . . . . .	3.0	2.0	65	Stone . . . . .	Stone . . . . .	2.0
Faneuil street, junction of Brooks, Brighton . . . . .	3.5	3.5	130	Stone . . . . .	Stone . . . . .	2.5
Faneuil, west of Parsons, Brighton . . . . .	4.0	4.83	50	Stone arch . . . . .	Stone . . . . .	4.0

Gardner street, near Cow Island, West Roxbury . . . . .	5.0	5.5	33	Wood . . . . .	Wood.	
•Green street, at Brookside avenue, West Roxbury . . . . .	each 10.0	7.0 & 8.0	260	Double stone arch.	Stone . . . . .	4.0
Harvard avenue, near Washburn street, Brighton . . . . .	2.67	3.0	58	Stone . . . . .	Stone . . . . .	6.0
Harvard avenue, south of Washburn street, Brighton . . . . .	2.76	3.75	55	Stone . . . . .	Stone . . . . .	4.0
•Hyde Park avenue and Washington street, West Roxbury . . . . .	each 8.0	each 7.0	361 & 93 each. 464	Double stone and { brick arch . . . . .	Brick and stone Wood.	5.0
•Hyde Park avenue, West Roxbury . . . . .	19.5	5.0	50	Stone . . . . .	Stone . . . . .	1.0
LaGrange street, corner of Pleasant, West Roxbury . . . . .	3.0	2.0	70	Stone . . . . .	Stone . . . . .	1.5
LaGrange street, north-west of Weld, West Roxbury . . . . .	3.0	1.5	90	Stone . . . . .	Stone . . . . .	2.0
LaGrange street, opp. Mt. Benedict Cem., West Roxbury . . . . .	2.0	2.5	50	Stone . . . . .	Stone . . . . .	3.0
LaGrange street, south-east of Weld, West Roxbury . . . . .	2.0	3.0	50	Stone . . . . .	Stone . . . . .	2.0
Lake street, opp. Chandler's pond, Brighton . . . . .	4.5	4.92	43.85	Stone (double) . . . . .	Stone . . . . .	1.2
Lake street, south of Washington, Brighton . . . . .	5.5	5.92	40.0	Stone (double) . . . . .	Stone . . . . .	5.0
Mill street, Dorchester . . . . .	each 6.75	each 9.5	50	Double stone arch.	Stone . . . . .	2.0
Morton street, near Austin farm, West Roxbury . . . . .	4.0	5.0	50	Stone . . . . .	Stone . . . . .	4.0
•Morton street, near Washington, West Roxbury . . . . .	15.0	10.0	50	Stone arch . . . . .	Stone . . . . .	3.0
•Mount Hope street, West Roxbury . . . . .	each 8.0	each 5.0	40	Double stone arch.	Stone . . . . .	2.0
Mount Hope street, West Roxbury . . . . .	5.0	4.0	40	Stone arch . . . . .	Stone . . . . .	7.17
Neponset avenue, Dorchester . . . . .	2.5	2.5	60	Wood . . . . .	Earth and wood.	2.0
Neponset avenue, 500 feet from Hyde Park avenue, West Roxbury . . . . .	5.0	4.0	40	Stone arch . . . . .	Stone . . . . .	2.5
•Neponset avenue, West Roxbury . . . . .	14.0	6.0	45	Stone arch . . . . .	Stone . . . . .	



List of Culverts and Small Bridges. — *Concluded.*

LOCATION.	Span. Feet.	Height of Opening. Feet.	Length. Feet.	Side-walls.	Covering.	Depth of cover'g. Feet.
North Harvard street, near Franklin, Brighton . . . . .	4.0	2.67	40	Stone . . . . .	Stone . . . . .	3.0
Oakland street, south of Faneuil, Brighton . . . . .	6.0	5.5	39.5	Stone (double) .	Stone & brick .	1.6
Park street, west of Dorchester avenue, Dorchester . . . . .	5.0	3.67	50	Stone . . . . .	Wood .	
Park street, west of O. C. R.R., Dorchester . . . . .	8.5	5.0	50	Stone . . . . .	Wood .	
Parsons street, north of Faneuil, Brighton . . . . .	4.0	4.0	40	Stone . . . . .	Stone . . . . .	15.0
Perkins street, near Jamaica Pond, West Roxbury . . . . .	5.0	4.0	40	Stone arch . . .	Stone . . . . .	4.0
Poplar street, 500 feet from Beech, West Roxbury . . . . .	3.0	1.5	110	Stone . . . . .	Stone . . . . .	4.5
Poplar street, Rosindale, West Roxbury . . . . .	7.0	4.0	40	Stone arch . . .	Stone . . . . .	2.0
Preston street, Dorchester . . . . .	9.0	5.08	40	Wood . . . . .	Wood and earth.	4.3
River street and Blue Hill avenue, Dorchester . . . . .	2.17	2.75	140	Stone . . . . .	Stone . . . . .	4.67
River street, Dorchester . . . . .	3.25	2.5	50	Stone . . . . .	Stone . . . . .	1.25
Saratoga street, East Boston . . . . .	5.0	6.0	50	Oval brick . . .	Brick . . . . .	6.0
South street, at Arnold Arboretum, West Roxbury . . . . .	4.5 & 2.0	3.5 & 1.5	30	Double stone . .	Brick . . . . .	1.8 & 3.5
Spring street, near Spring-street station, West Roxbury . . . . .	2.67	2.67	63	Stone . . . . .	Wood .	
Summer street, near Spring-street station, West Roxbury . . . . .	4.0	4.5	40	Stone . . . . .	Wood .	
Tenean street, near Fulton, Dorchester . . . . .	6.25	6.25	40	Wood . . . . .	Earth and wood.	6.5

*Texas street, off Tremont street . . . . .	14.0	about 8.0	20	Stone . . . . .	Wood . . . . .	3.0
Walk Hill street, near Canterbury street, West Roxbury . . . . .	8.0	4.0	50	Stone arch . . . . .	Stone . . . . .	3.0
Walker street, north of Bussey park, West Roxbury . . . . .	3.0	4.0	60	Stone . . . . .	Stone . . . . .	3.0
Washington street, corner Beaumont avenue, Brighton . . . . .	3.0	3.5	65	Stone . . . . .	Stone . . . . .	3.0
*Washington street (Musk-Rat Village), West Roxbury . . . . .	14.0	6.0	40	Stone arch . . . . .	Stone . . . . .	4.5
Washington street, near Poplar street, West Roxbury . . . . .	14.0	5.0	38	Stone . . . . .	Wood . . . . .	3.4
*Washington street, near Williams, West Roxbury . . . . .	each 7.0	each 7.0	70	Double stone arch . . . . .	Stone . . . . .	4.5
Wald street, near LaGrange, West Roxbury . . . . .	2.0	4.0	30	Stone . . . . .	Stone . . . . .	4.0
Western avenue, near North Harvard street, Brighton . . . . .	4.0	3.0	60	Stone . . . . .	Stone . . . . .	4.0
*Williams street, West Roxbury . . . . .	15.5	8.0	40	Stone . . . . .	Wood . . . . .	
Williams street, West Roxbury . . . . .	5.0	5.0	50	Wood . . . . .	Wood . . . . .	

APPENDIX A4. — (*Supplement*).  
List of Culverts and Small Bridges built in 1891.

LOCATION.	Span. Feet.	Height of Opening. Feet.	Length. Feet.	Side-walls.	Covering.	Depth of cover'g. Feet.
<b>DORCHESTER.</b>						
Blue Hill avenue, near Harvard street . . . . .	5.0	4.42	85	Stone . . . . .	Stone . . . . .	1.5
Harvard street, near Blue Hill avenue . . . . .	5.0	4.42	45	Stone . . . . .	Stone . . . . .	2.0
Bailey street, near Hillside terrace . . . . .	4.0	3.42	40	Stone . . . . .	Stone . . . . .	2.5
Fuller street, " " . . . . .	4.0	3.42	40	Stone . . . . .	Stone . . . . .	1.5
Dorchester avenue, near Van Winkle street . . . . .	4.0	3.42	60	Stone . . . . .	Stone . . . . .	1.5
" " " King street . . . . .	4.5	4.92	60	Stone . . . . .	Stone . . . . .	1.5
Carruth street, near Codman street . . . . .	51.0	5.0	72	Stone . . . . .	Stone . . . . .	1.5
Centre street, near Seaborn street . . . . .	3.0	3.42	40	Stone . . . . .	Stone . . . . .	2.0
<b>West Roxbury.</b>						
Sycamore and Florence streets . . . . .	4.0	3.92	73	Stone . . . . .	Stone . . . . .	2.0
Allendale street, near the spring . . . . .	3.5	3.92	40	Stone . . . . .	Stone . . . . .	2.0
" " " lower brook . . . . .	1.5	1.5	40	Pipe . . . . .	Pipe . . . . .	2.5
Cornell street, near Washington street . . . . .	4.0	3.42	41	Stone . . . . .	Stone . . . . .	2.5
<b>BRIGHTON.</b>						
Hobart street, near Faneuil street . . . . .	6.0	7.5	44	Stone . . . . .	Brick . . . . .	1.5
Dustin street, near North Beacon street . . . . .	5.0	5.0	40	Stone . . . . .	Stone . . . . .	1.2

## APPENDIX A5.

## Statement of Traffic between the Hours of 6.30 A.M. and 8 A.M.

NAME OF BRIDGE.	Date, 1891.	Teams to Boston.	Foot-passengers to Boston.	Teams to South Boston.	Foot-passengers to South Boston.	Horse-cars (both ways).	Horse-car Passengers (both ways).
Broadway . . . . .	April 8.	289	1,844	65	137	55 <sup>1</sup>	1,360 <sup>1</sup>
Broadway . . . . .	April 10.	192	1,390	72	258	18	445
Congress street . . . . .	April 6.	315	445	141	709	..	..
Congress street . . . . .	April 9.	240	505	165	765	..	..
Dover street . . . . .	April 7.	149	1,179	112	368	24	538
Dover street . . . . .	April 10.	158	1,281	105	351	25	628
Federal street . . . . .	April 7.	392	3,600	82	245	348	2,686
Federal street . . . . .	April 9.	330	3,450	63	92	126	2,681
Mt. Washington avenue . . . . .	April 6.	203	564	105	350	..	..
Mt. Washington avenue . . . . .	April 8.	220	498	63	276	..	..

<sup>1</sup> Excess caused by blockade previous to count.

## APPENDIX A6.

## Statement of Traffic between the Hours of 12 M. and 1 P.M.

NAME OF BRIDGE.	Date, 1891.	Teams to Boston.	Foot-passengers to Boston.	Teams to South Boston.	Foot-passengers to South Boston.	Horse-cars (both ways).	Horse-car Passengers (both ways).
Broadway . . . . .	April 8.	39	412	69	514	14	331
Broadway . . . . .	April 10.	72	383	77	451	12	298
Congress street . . . . .	April 6.	189	333	178	316	..	..
Congress street . . . . .	April 9.	174	223	209	251	..	..
Dover street . . . . .	April 7.	62	451	62	394	12	202
Dover street . . . . .	April 10.	59	442	82	472	12	239
Federal street . . . . .	April 7.	107	750	108	355	63	1,043
Federal street . . . . .	April 9.	90	750	123	442	70	1,272
Mt. Washington avenue . . . . .	April 6.	76	148	76	180	..	..
Mt. Washington avenue . . . . .	April 8.	52	185	90	203	..	..

## APPENDIX A7.

## Statement of Traffic between the Hours of 5.30 P.M. and 7.00 P.M.

NAME OF BRIDGE.	Date, 1891.	Teams to Boston.	Foot-passengers to Boston.	Teams to South Boston.	Foot-passengers to South Boston.	Horse-cars (both ways).	Horse-car passengers (both ways).
Broadway . . . . .	April 8.	32	499	275	2,583	20	505
Broadway . . . . .	April 10.	92	427	338	2,504	20	504
Congress street . . . . .	April 6.	110	1,080	302	442	. .	. . .
Congress street . . . . .	April 9.	100	630	270	473	. .	. . .
Dover street . . . . .	April 7.	57	650	122	1,164	37	1,064
Dover street . . . . .	April 10.	50	569	109	1,298	36	1,031
Federal street . . . . .	April 7.	57	287	339	3,700	160	3,250
Federal street . . . . .	April 9.	73	213	294	3,525	154	3,604
Mt. Washington avenue . . . . .	April 6.	56	363	372	623	. .	. . .
Mt. Washington avenue . . . . .	April 8.	58	313	235	447	. .	. . .





## APPENDIX B.

REPORT OF DEPUTY SUPERINTENDENT OF  
PAVING DIVISION.H. H. CARTER, *Superintendent of Streets*:

DEAR SIR: In compliance with the order conveyed in your letter of Dec. 14, 1891, requesting a statement of the work of the Paving Division, for the year 1891, the following report is submitted, showing the expenditures of this division from Jan. 1, 1891, to Jan. 31, 1892, the nature of its work under the new organization, the number and variety of permits issued, and the details of expenditures involved in paving, macadamizing, and regulating the various streets.

The following list shows the total yearly expenditures of the Paving Division, according to the report of the Superintendent of Streets, for the last thirty-four years, the expenditures being from January 1 to December 31, inclusive, of each year, except for 1891, that year extending to Jan. 31, 1892, making a period of thirteen months:

1856 . .	\$192,458 48	1875 . .	\$1,062,408 55
1857 . .	201,528 49	1876 . .	980,741 42
1858 . .	187,160 92	1877 . .	1,077,475 81
1859 . .	186,295 77	1878 . .	644,821 76
1860 . .	197,170 63	1879 . .	727,340 05
1861 . .	176,978 76	1880 . .	1,015,063 06
1862 . .	175,981 68	1881 . .	966,366 49
1863 . .	151,130 27	1882 . .	1,088,551 14
1864 . .	156,959 65	1883 . .	934,656 58
1865 . .	173,258 13	1884 . .	1,310,172 16
1866 . .	244,953 55	1885 . .	1,018,693 39
1867 . .	283,641 56	1886 . .	1,170,863 01
1868 . .	407,053 89	1887 . .	1,260,530 03
1869 . .	667,817 90	1888 . .	1,043,475 52
1870 . .	804,384 89	1889 . .	1,051,460 18
1871 . .	923,312 37	1890 . .	1,061,722 40
1872 . .	1,010,508 48	1891 . .	1,991,524 28
1873 . .	931,019 01		
1874 . .	1,683,848 67	Total .	\$27,161,328 93



We see by this schedule that the city expended in 1856, \$192,458.48 on a street mileage of one hundred miles (forty of which were paved, and sixty unpaved), covering that part of our city which is now known as the City Proper, East and South Boston.

The street mileage was increased by the annexation of Roxbury, Jan. 6, 1868; Dorchester, Jan. 3, 1870; Charlestown, Brighton, and West Roxbury, Jan. 5, 1874; and also by converting the private ways into public streets, and laying out new streets, so that by Jan. 1, 1891, the total mileage of streets that was under the care of the Superintendent of Streets was 409.37 miles, with an expenditure of \$1,061,722.40. It can readily be seen by this, that as the government has increased the mileage of streets, it has not increased the amount of money to maintain them in proportion, as the Superintendent of to-day has only about the same average amount of money per mile, with which to maintain the streets, as his predecessor did thirty-five years ago, when our citizens were satisfied with the cobble-stone pavement, at \$1.70 per square yard, against the granite block paving, on a concrete base, with tar joints, at an expense of \$4.75 per square yard.

Labor at that time was worth only \$1.00 per day for ten hours' work, against \$2.00 for nine hours at the present time, and the cost of teams and materials to do the work has increased in the same proportion; also at that time there was no expense for street-watering, which shows at the present time an expenditure of \$104,263 a year.

Also, our streets at that time were not continually being torn up for the purpose of constructing street railways, and for laying sewer, water, and gas pipes, and making the necessary connections; also for laying underground wires.

To what an extent this is done yearly, it may be stated that last year there were over thirteen thousand permits granted, covering more than one hundred and ten miles of trenches; and every year this business of opening our streets increases.

In 1856 the average number of men employed in our division was sixty; at the present time we furnish employment for seven hundred and fifty men.

By the above statement it can be seen that the Superintendent of to-day has not the means financially for the care of our public streets, in proportion to the increase of work that comes under his supervision.

It may also be stated that twenty years ago (1872) the city of Boston appropriated and expended \$1,000,000 for the maintenance of its streets, with a mileage of 207 miles,

and since then has expended on an average \$1,000,000 a year for the same purpose, and at the same time the mileage has increased from 207 in 1872 to 434.59 miles in 1892; so it can be seen that as the city appropriated about the same amount for its maintenance, its mileage has doubled.

As the money for the maintenance of this department is provided for out of the tax levy, it makes it impossible to increase the amount sufficiently for the maintenance of this department, and therefore it would seem advisable that some way be found to build our streets by assessment on the abutting property, so that large and needed improvements can be made yearly.

This would enable our citizens, especially in our outlying wards, to have their streets built and improvements made without having to wait for some indefinite period to enable the government to furnish the money from some loan.

#### OFFICIAL DUTIES.

The duties of the office are defined in the following letter, which was received on the appointment of the present deputy:

BOSTON, March 23, 1891.

C. R. CUTTER, Esq., *Deputy Superintendent of Paving Division:*

DEAR SIR: The duties of your division are defined in the ordinance to amend Chapter 18 of the Revised Ordinances of 1890, relating to the Street Department, as passed by the Board of Aldermen March 2, 1891, and approved by the Mayor March 9, 1891, and as more particularly specified as follows:

1. To take charge of the construction and maintenance of all highways, as provided in Section 1 of said ordinance.

2. To attend to the placing of street-signs and numbering of buildings, as provided in Section 4 of said ordinance.

3. To notify all departments, and persons authorized to place structures in streets, when your division contemplates the construction or resurfacing of streets, as provided in Section 7 of said ordinance.

4. To issue permits to open, occupy, and obstruct portions of streets to persons having authority in the premises, and to see that such permits are carried out in accordance with the provisions of Sections 8 to 19, inclusive, of said ordinance.

5. To see that all statutes, ordinances, and regulations relating to the care and use of streets are fully observed, and to carry out all lawful orders of the Board of Aldermen relating to streets, as provided in Section 21.

6. To organize your division with a suitable force of clerks and assistants, for the purpose of keeping the necessary books and records.

7. To divide construction work of your division into ten districts, and to employ the necessary force of foremen, sub-foremen, mechanics, laborers, etc., to properly do the work of your division, and to take charge of all property formerly belonging to the Street Department.

8. To take charge of all street-sprinkling that is done by the city.

9. To remove snow and ice from the streets and gutters, and to shovel snow from all plank sidewalks where the city is liable for any damages from accidents thereon.

(Signed)

H. H. CARTER  
*Superintendent of Streets.*

*Section 1. Construction and Maintenance.* — The greater part of our work has been done by the department, but owing to the unusually large amount of work called for and the lack of proper plant, some of the more important streets were let out by contract, the supervision of which was assigned to the City Engineer, Mr. William Jackson.

*Section 2.* — As to the placing of street-signs and numbering of buildings, as provided for in Section 4 of the ordinance, I would state that numerous signs designating the names of different streets have been placed in the various districts of the city, and the work is being continued as fast as possible, in the hope that by another year our streets shall be well defined, for the convenience of visitors from sister cities, as well as our own.

The signs in use are painted wood, and are not as durable as could be desired.

Several different patent signs are being tried, but have not been in use long enough to pass judgment on them.

What is needed is a sign that can be placed at the intersection of streets, that can be read at night as well as in the daytime.

In regard to the numbering of streets, a special clerk takes charge of this work, whose duty it is to attend to all applications for estate numbers, drafting a plan of the street, and numbering each lot consecutively until the proper number is found.

Numbers have been assigned to estates in the different districts as follows :

City proper	.	.	.	40	streets, and parts thereof.		
Roxbury	.	.	.	44	"	"	
Dorchester	.	.	.	25	"	"	
Charlestown	.	.	.	9	"	"	
West Roxbury	.	.	.	20	"	"	
East Boston	.	.	.	9	"	"	
South Boston	.	.	.	13	"	"	
Brighton	.	.	.	17	"	"	
				<hr/>			
Total	.	.	.	176	"	"	

*Section 3. Notification to Abutters.* — When the division contemplates the construction or resurfacing of streets, notice has been sent to all city departments and persons authorized to place structures in the streets, and to all the owners of abutting property that were on record according to the Assessors' plan of the previous May.

This notice stated that the city was about to commence

work thereon, and that no permits would be granted for openings in the street, until one year had elapsed from the time of the completion of the work.

These notifications were sent by mail, and as it involved looking up the addresses of owners of estates of some 250 different streets, it can readily be seen that a large amount of clerical labor was required.

A more satisfactory method, if the ordinance so admitted, would be to place all such notices in public print at a specified time, as it would accomplish the desired results in the end.

This is a matter of courtesy, and not required by law. If the closing of the street were extended to a limit of two years, instead of one, it would be much better for the street.

Where the city has been compelled to grant permits for openings for the repairs of leaks on streets that were closed, the parties doing the work have been obliged to fill the trenches with concrete, to prevent any settling of the street.

*Section 4. Issuing Permits.* — All persons and corporations applying for permits to open, occupy, and obstruct portions of the street, are required to file satisfactory bonds with the permit clerk, before any permit is issued. Two inspectors are employed to follow up the permits issued, to see that all work is properly done. This number of inspectors is not considered sufficient to properly look after all the work that is going on at any one given time, as it is important to be on the ground while the refill is taking place.

By the present method a man applies for and obtains a permit to make an opening in the street; he shows it to the police, to prove that he has authority to make the opening; he makes the opening, does the work, fills the trench, smooths the top of, and returns his permit to the police, who sends it to the office properly indorsed.

All this work has been done without any supervision or inspection by the city of the way or manner that the trench was filled.

After the permit has been returned to the office, the surface of the opening is inspected, which looks smooth and proper as a general thing. In four or five weeks after the city has accepted the opening, there comes a heavy rain, and the trench settles.

The city then has to look up the parties who made the opening, and to require them to put it into a satisfactory condition, it being sometimes necessary to send the parties back four or five times.

No party ought to be allowed to fill a trench except under supervision.

Permits to open the streets for underground work, between January 1, 1891, and January 31, 1892, have been issued as follows :

Company.	Permits.	Feet.
Barber Asphalt Co. . . . .	24	14,876
Boston Electric Light Co. . . . .	166	1,576
Boston Gas Light Co. . . . .	963	46,233
Boston Water Dept. (E. D.) . . . .	3,580	135,378
Boston Water Dept. (Mystic) . . . .	133	7,738
Brookline Gas Light Co. . . . .	121	10,972
Charlestown Gas Light Co. . . . .	57	976
City Engineer Dept. . . . .	1	1,280
Dorchester Gas Light Co. . . . .	414	15,460
East Boston Gas Light Co. . . . .	108	3,394
Edison Electric Ill. Co. . . . .	595	27,960
Fire-Alarm Dept. . . . .	20	359
Improved Sewerage . . . . .	1	1,456
Jamaica Plain Gas Co. . . . .	243	23,052
Jamaica Pond Aqueduct Co. . . . .	22	1,856
National Construction Co. . . . .	4	105
N. E. Tel. and Tel. Co. . . . .	185	41,437
Postal Tel. Cable Co. . . . .	10	1,336
Quincy Market Cold Storage Co. . . .	2	735
Roxbury Gas Light Co. . . . .	391	15,137
Sewer Division . . . . .	302	46,332
South Boston Gas Light Co. . . . .	175	15,921
West End St. Ry. Co. . . . .	279	88,142
Western Union Telegraph Co. . . . .	26	996
Miscellaneous . . . . .	3,487	87,175
	<hr/> 11,320	<hr/> 584,365

Or 110.7 miles of trench opened.

The average length of trench opened on a permit is 51.6 feet.

There have been in addition to the above, 1,916 openings made on emergency permits, with which the various corporations and departments are furnished. The average lengths of openings on these permits are about six feet each. A record of these is kept in this office.

*Other permits have been granted as follows :*

Moving buildings . . . . .	94
Coal-holes . . . . .	16
Occupying portions of the streets, to repair and construct buildings . . . . .	4,808

*Carried forward,* 4,918

<i>Brought forward,</i>	4,918
Erecting awnings . . . . .	479
Driving cattle . . . . .	34
Raising and lowering safes, machinery, etc. . . . .	827
Distributing sand . . . . .	24
Special permits for various purposes . . . . .	125
	<hr/>
	6,407

Total number of permits of all kinds issued . . 17,727

There have been 10,881 notices sent to the various division foremen to repair in the streets defects reported by the police.

Also 2,020 to various parties to repair defects in coal-holes, Hyatt lights, and work that has been done imperfectly.

There have also been 5,465 notices sent to abutters on various streets, to notify them of contemplated improvements.

There have been 526 bonds filed in this office this year, in accordance with Chap. 18, Rev. Ord., 1891.

*Section 5.*—Care has been taken to see that all statutes, ordinances, and regulations relating to the care and use of streets are fully observed, and to carry out all lawful orders of the Board of Aldermen relating to streets, as provided for in Section 21 of the ordinances.

*Section 6. Office Force.*—The force of clerks and assistants for the purpose of keeping the necessary books and records is the same as it was under the previous Superintendent, although the work is more than doubled.

The clerks are faithful and hard working, and a judicious increase of their salaries would be a recognition of their work.

*Section 7.*—The construction work of the division is divided into ten districts, and necessitates the employment of a force of foremen, sub-foremen, mechanics, laborers, etc., in all about 750 men, to properly do the work and to take care of all the property formerly belonging to the Street Superintendent.

The men in this division have done excellent work during the past year, and the press and the citizens have much to say in praise of many changes inaugurated.

*Section 8. Street-watering.*—The street-watering has been very costly and unsatisfactory, on account of the way and manner in which it has been done.

The total expense has been \$104,263; \$50,000 of which was appropriated directly for the purpose from the reserved

fund, and the balance of \$54,263 was paid out of the regular maintenance appropriation of the division.

More satisfactory means should be devised for watering the city and dividing the cost thereof, and the whole work systematically mapped out at the very beginning of the year.

*Section 9. Removal of Snow and Ice.* — The city has been divided up into snow districts, and all the sidewalks that belong to the city to be kept clear have been thoroughly covered, and the snow has been shovelled off and carted away as soon as practicable. It has been the custom to shovel the snow from all plank-walks in order to free them from danger of accidents, and to remove the snow and ice from the streets and gutters only where edgestones are set. The work is so arranged in conjunction with the Street-Cleaning Division, that a large snow-storm can be easily handled in a comparatively short space of time.

#### STREETS LAID OUT OR EXTENDED IN 1891.

Date.	Street.	Length in ft.
Mar. 3.	Sewall street, Tremont street to Dell avenue . . . . .	314
Mar. 11.	Mountford street, Beacon street to Ivy street . . . . .	636
Mar. 26.	Gold street, B street to New England R.R. . . . .	150
Mar. 30.	Eldora street, Hillside street to Sunset street . . . . .	427
Mar. 14.	Smith street, Bumstead lane to Huntington avenue . . . . .	504
April 22.	Mt. Vernon street to Foster street . . . . .	713
May 7.	Call street, Keyes street to Hall street, . . . . .	505
May 18.	Westford street, from Raymond street, . . . . .	762
May 18.	Burke street, Tremont street to Berlin street . . . . .	281
June 12.	Harold street, Crawford street to Har- rishoff street . . . . .	1,031
June 18.	Granger street, Clayton street to Duncan street . . . . .	521
June 18.	Maxwell street, Milton avenue to Nel- son street . . . . .	1,610
June 19.	Longmeadow street, Clifton to Batch- elder street . . . . .	287
June 23.	Reading street, Kemble street to Swett street . . . . .	1,033
<i>Carried forward,</i>		<hr/> 8,774

## STREET DEPARTMENT.

187

Date.	Street.	Length in ft.
<i>Brought forward</i>		8,774
June 23.	Homer street, Moore street to Byron street . . . . .	600
July 2.	Sunset street, Parker Hill avenue to Hillside street . . . . .	399
July 2.	Horace street, Moore street to Byron street . . . . .	600
July 14.	Hano street, Braintree street to private way . . . . .	486
July 14.	Blaine street, Braintree street to private way . . . . .	404
July 16.	Mansur street, Day street to Schiller street . . . . .	374
July 16.	Schiller street, Heath street to Minden street . . . . .	302
July 17.	Sylvia street, Washington street to Forest Hills street . . . . .	231
July 24.	Kenneth street, Farrington street to Beech street . . . . .	302
Aug. 12.	Cornwall street, Brookside avenue to Boylston avenue . . . . .	317
Aug. 14.	Arlington street, Parsons street, west .	399
Aug. 14.	Bradbury street, Franklin to Mansfield street . . . . .	371
Aug. 14.	Buttonwood street, Mt. Vernon to Locust street . . . . .	601
Aug. 17.	Southwood street, Edgewood to Blue Hill avenue . . . . .	546
Aug. 25.	Harvest street, Dorchester avenue to Boston street . . . . .	950
Aug. 25.	Falcon street, Meridian to Putnam street . . . . .	1,483
Aug. 28.	Moreland street, Blue Hill avenue to Dennis street . . . . .	342
Aug. 28.	Sycamore street, Ashland to Florence street . . . . .	1,375
Aug. 28.	Peter Parley street, Forest Hills street to Walnut street . . . . .	1,122
Sept. 11.	Goldsmith street, Centre to Custer street . . . . .	650
Sept. 10.	German street, Washington to Grove street . . . . .	1,060
Sept. 21.	No. Margin street, from angle in street to Stillman . . . . .	83

*Carried forward,*

21,771



Date.	Street.	Length in ft.
<i>Brought forward,</i>		21,771
Sept. 28.	Boyle street, Cordis to Pleasant street,	132
Oct. 3.	Ballard street, Centre to Custer street,	557
Oct. 3.	Ridge street, Sherwood to Sycamore street . . . . .	421
Oct. 3.	Topliff street, Bowdoin street to Geneva avenue . . . . .	1,353
Oct. 7.	Peter Parley street, Forest Hills street to Washington street . . . . .	159
Oct. 9.	Baldwin street, Main street to Rutherford avenue . . . . .	247
Oct. 13.	Lucas street, Middlesex street to Shawmut avenue . . . . .	98
Oct. 13.	Prospect street, Sheldon to Sycamore street . . . . .	168
Oct. 13.	Gustin street, W. Ninth street to Old Colony R.R. . . . .	354
Oct. 16.	Church street, Winter to High street . . . . .	320
Nov. 2.	Auckland street, Belfort to Bay street,	1,410
Nov. 2.	Bigelow street, Webster to Brooks street . . . . .	2,284
Nov. 2.	Dundee street, W. Chester park to Dalton street . . . . .	723
Nov. 6.	Henshaw street, Market to Cambridge street . . . . .	979
Nov. 10.	Dacia street, Dalmatia street to Dewey street . . . . .	235
Nov. 10.	Cherry street to Dalmatia street . . . . .	112
Nov. 13.	Wirt street, Washington to Henshaw street . . . . .	258
Nov. 13.	Menlo street, Henshaw to Sparhawk street . . . . .	443
Nov. 13.	Shelton street to Wrenthan street . . . . .	353
Nov. 16.	Tuttle street, Savin Hill avenue to Hartland street . . . . .	1,157
Nov. 27.	Houghton street, Mill to Pope's Hill street . . . . .	1,415
Nov. 30.	Wenham street, Walk Hill to Weldon street . . . . .	1,285
Nov. 30.	Beale street, Dorchester avenue to Old Colony R.R. . . . .	536
Dec. 1.	Byron street, Saratoga to Pope street,	931
Dec. 1.	Hunneman street, Harrison avenue to Washington street . . . . .	493

*Carried forward,*

38,194

## STREET DEPARTMENT.

189

Date.	Street.	Length in ft.
<i>Brought forward,</i>		38,194
Dec. 8.	Dalmatia street, Blue Hill avenue to Howard avenue . . . . .	724
Dec. 16.	Stanhope street, Berkeley street to near Columbus avenue . . . . .	895
Dec. 16.	Malcolm street, Mt. Vernon to Chestnut street . . . . .	240
Dec. 22.	Leyland street, Cottage to Burgess street . . . . .	695
Dec. 23.	Norway street, Huntington avenue to Falmouth street . . . . .	225
Dec. 31.	Dacia street, Dewey to Brookford street . . . . .	610

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 41,583

or 7.87 miles.

## STREETS RELOCATED IN 1891.

Date.	Street.	Sq. feet.
Aug. 17.	Harvard street, between Harvard avenue and Trescott street . . . . .	4,925
Nov. 13.	Howard avenue, relocated and grade changed . . . . .	2,801
Nov. 27.	North square, near and at North street, . . . . .	92
Dec. 10.	Western avenue, opposite Market street, . . . . .	1,242

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 9,060

## STREETS DISCONTINUED IN 1891.

Date.	Street.	Sq. feet.
Mar. 18.	High street, between Hartford and Oliver streets . . . . .	23
July 11.	E. Springfield street, Harrison avenue to Albany street . . . . .	31,561
Nov. 16.	Bigelow street, W. side, near Webster street . . . . .	147
Dec. 16.	Walnut avenue, near and north of Cobden street . . . . .	93

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 31,824

## STREETS WIDENED IN 1891.

Date.	Street.	Sq. feet.
Mar. 18.	High street, north-west side, between Hartford and Olivia . . . . .	13
April 29.	Dudley street, Vine to Hampden street, . . . . .	1,846

*Carried forward,*
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 1,859

Date.	Street.	Sq. feet.
<i>Brought forward,</i>		1,859
June 29.	North square, on north-east and south-west side, near North street . . .	110
July 21.	Charlestown street, on west side, between Causeway and Medford . . .	926
Oct. 2.	Whitney street, north-west side, near Smith street . . . . .	322
Oct. 12.	Blue Hill avenue, west side, near Tilton avenue . . . . .	676
Dec. 22.	Blue Hill avenue, at Morton street . . .	950
Dec. 31.	Kennard avenue, south-east side, near Allen street . . . . .	1,446
		<hr/> 6,289 <hr/>

The record of the Street Commissioners for the year 1891 shows the following results :

Streets laid out or extended . . .	41,583 lin. ft.	7.87 miles.
Streets relocated . . . . .	9,060 sq. ft.	
Streets discontinued . . . . .	631 lin. ft.	0.12 mile.
Streets widened . . . . .	6,289 sq. ft.	
Increase in mileage . . . . .	41,124 lin. ft.	7.75 miles.

Table showing the number of miles in length of streets laid out by the Board of Street Commissioners :

In 1871 . . . . .	5.72 miles.	In 1883 . . . . .	6.11 miles.
1872 . . . . .	2.20 "	1884 . . . . .	5.50 "
1873 . . . . .	4.66 "	1885 . . . . .	3.95 "
1874 . . . . .	4.68 "	1886 . . . . .	6.75 "
1875 . . . . .	8.92 "	1887 . . . . .	5.34 "
1876 . . . . .	5.52 "	1888 . . . . .	5.12 "
1877 . . . . .	7.37 "	1889 . . . . .	6.22 "
1878 . . . . .	4.80 "	1890 . . . . .	5.69 "
1879 . . . . .	5.35 "	1891 . . . . .	7.75 "
1880 . . . . .	4.51 "		
1881 . . . . .	4.80 "		
1882 . . . . .	8.14 "		
		Total in 21 yrs.	119.10 "

## FINANCIAL STATEMENT.

Balance on hand Jan. 1, 1891 . . . . .	\$45,211 81
Transferred from Causeway street Jan. 3, 1891 . . . . .	3,000 00
Loan Feb. 2, 1891 . . . . .	183,000 00
	<hr/>
	\$231,211 81

Amount of expenditures charged to Paving Division from Jan. 1, 1891, to April 30, 1891 . . . . .	\$224,336 08
Used by other divisions . . . . .	6,875 73
	<hr/>
	\$231,211 81

Appropriation for Paving Division, 1891-1892 . . . . .	\$700,000 00
From Reserve Fund for Street-watering, July . . . . .	50,000 00
Transferred from Cambridge Bridge . . . . .	1,677 06
Transferred from Police Division, . . . . .	3,485 59
	<hr/>
	\$755,162 65

Amount of expenditures charged to Paving Division from May 1, 1891, to Jan. 31, 1892 . . . . .	\$752,863 94
Transferred to Humboldt-avenue grade damages . . . . .	1,815 00
Remaining in treasury Feb. 1, 1892 . . . . .	483 71
	<hr/>
	\$755,162 65

<hr/>	<hr/>
\$986,374 46	\$986,374 46
<hr/>	<hr/>

Total expenditures from regular appropriation . . . . .	\$977,200 02
Total expenditures from special appropriations . . . . .	1,014,324 26
	<hr/>
Grand total (regular and special) . . . . .	<u>\$1,991,524 28</u>

## INCOME.

Statement showing the amount of bills deposited with the City Collector from Jan. 1, 1891, to Feb. 1, 1892, on account of the Paving Division :

Edgestone and sidewalk assessments . . .	\$31,037 30
Sale of stone, etc. . . . .	985 55
Fort Hill Wharf (rent) . . . . .	625 00
West End R.R. Co., settlement of accident claim . . . . .	1,130 00
	<hr/>
	<u>\$33,777 85</u>

The amount paid into the city treasury during the same period on account of the Paving Division :

Edgestone and sidewalk assessments . . .	\$17,299 01
Sale of stone, etc. . . . .	482 15
Fort Hill Wharf (rent) . . . . .	625 00
West End R.R., settlement of accident claim, . . . . .	1,130 00
	<hr/>
	<u>\$19,536 16</u>

Table showing Expenses Paid from the Regular Appropriation, Classified by Districts, from Jan. 1, 1891, to Jan. 31, 1892.

	Maintenance and Construction of Streets.	Sprinkling Streets.	Removal of Snow.	Executions of Court.	Miscellaneous.	Total.
South Boston .....	\$35,980 81	\$6,162 03	\$9,378 43	.....	.....	\$51,521 27
East Boston .....	41,210 98	6,053 27	5,446 59	.....	.....	52,710 84
Charlestown .....	23,312 41	6,984 23	6,121 26	.....	.....	36,417 90
Brighton .....	53,981 41	13,895 37	4,986 63	.....	.....	72,863 41
West Roxbury .....	123,428 76	17,118 01	7,093 74	.....	.....	147,640 51
Dorchester .....	84,184 44	15,503 85	6,261 19	.....	.....	105,949 48
Roxbury .....	142,344 35	15,009 79	10,035 33	.....	.....	167,389 47
City Proper .....	171,376 10	23,537 07	53,087 69	.....	.....	248,000 86
Execution Courts .....	.....	.....	.....	\$25,633 65	.....	25,633 65
Miscellaneous .....	.....	.....	.....	.....	\$69,072 63	69,072 63
<b>Total.....</b>	<b>\$675,819 26<sup>1</sup></b>	<b>\$104,263 62</b>	<b>\$102,410 86</b>	<b>\$25,633 65</b>	<b>\$69,072 63</b>	<b>\$977,200 02</b>

<sup>1</sup> Of this amount, \$119,698.77 was expended on new work. For details see following pages.

## EXPENDITURES.

Advertising in and subscribing for daily papers,	\$647 78
Dorchester ledge, construction of . . . . .	2,084 26
Horses, carts, and harnesses (new) . . . . .	10,993 14
Harrisburg Foundry and Machine Co., steam-roller . . . . .	4,000 00
Aveling & Porter, steam-roller . . . . .	4,000 00
Plans for office . . . . .	1,067 70
Printing and stationery . . . . .	4,458 34
Repairing stables, sheds, etc. . . . .	1,327 94
Sundries . . . . .	8,445 69
Street signs and numbering . . . . .	3,112 83
Salary of J. Edwin Jones, as Superintendent of Streets, Jan. 1 to Jan. 17, 1891 . . . . .	188 89
Salary of Michael Meehan, as Deputy Superintendent of Streets, Jan. 1 to Jan. 17, 1891 . . . . .	141 67
Salary of H. H. Carter, as Acting Superintendent of Streets, Jan. 19 to March 8, 1891 . . . . .	566 66
Salary of H. H. Carter, as Acting Superintendent of Streets, March 9 to March 31, 1891 . . . . .	458 33
Salary of C. R. Cutter, as Deputy Superintendent of Streets, March 23, 1891, to Jan. 28, 1892 . . . . .	2,578 55
Salary of office clerks . . . . .	9,089 27
Telephone, expenses of . . . . .	992 47
Tools, cost of keeping same in repair, etc. . . . .	14,919 11
	<hr/>
	\$69,072 63

## EXECUTIONS OF COURT, ETC.

Brown, Mary L., personal injuries . . . . .	\$1,033 86
Brackett, J. Albert, injuries to horse . . . . .	200 00
Bean, B. F., damage to house . . . . .	40 00
Coffey, John J., personal injuries . . . . .	50 00
Clark, Thos. H., damage to carriage . . . . .	40 00
Carroll, Patrick, personal injuries . . . . .	55 50
Cunniff, Ellen, " . . . . .	100 00
Driscoll, Louisa M., damage to estate . . . . .	75 00
Deegan, Catherine E., Admx., injury to husband (Committee on Claims . . . . .	400 00
Fitzpatrick, John B., personal injuries . . . . .	200 00
Finn, Ellen T., " . . . . .	325 12
Gordan, Charles K., " . . . . .	175 00
Grose, Mercy D., " . . . . .	200 00

Carried forward,

\$2,894 48

## STREET DEPARTMENT.

195

<i>Brought forward,</i>	\$2,894 48
Gates, Mary A., personal injuries . . . . .	1,325 45
Holmes, John S., " . . . . .	400 00
Hutchinson, Margaret A. C., personal injuries . . . . .	2,099 73
Imre, T. J., " . . . . .	150 00
Kelrey, Chas. E., " . . . . .	131 60
Luchterhand, Sophie K., " . . . . .	122 37
Luchterhand, Fred. W., " . . . . .	100 00
Lynch, William, damage to house . . . . .	50 00
Lannon, Jane C., grade damages . . . . .	625 32
McNamara, Bridget, personal injuries . . . . .	686 68
Madden, Bridget F., <i>et als.</i> , grade damages . . . . .	675 32
Mooney, J., grade damages . . . . .	400 00
McCorkle, Sarah J., personal injuries . . . . .	100 00
McLellan, Albert, " . . . . .	64 00
Mahern, Esther J., damage to house . . . . .	28 00
McGonagle, Charles, stone taken from his land . . . . .	40 00
Peters, Richard and Mary, grade damages . . . . .	125 32
Ruggles, Daniel, personal injuries . . . . .	250 00
Robbins, Elliot D., injuries to horse . . . . .	350 00
Ryan, Mary E., personal injuries . . . . .	450 00
Sanipson, Thomas A., damage to herdie . . . . .	50 00
Thompson, Emma A., personal injuries . . . . .	1,650 45
Vaughan, Kate, " . . . . .	937 49
Warren, J. Frank, " . . . . .	400 00
Whitcomb, A. F., injuries to horse . . . . .	150 00

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\$14,256 21

## GRADE DAMAGES, HUMBOLDT AVENUE.

Brown, Agnes . . . . .	\$471 24
Carpenter, Samuel L. and Lucinda W. . . . .	200 00
Draper, Charles E. . . . .	2,121 24
D'Arcy, Frank P. . . . .	421 24
Folsom, Mary F. . . . .	1,521 24
Gerry, Samuel L. . . . .	400 00
Hunt, Sylvia W. . . . .	471 24
Knowles, J. M. . . . .	900 00
Kittredge, C. F. . . . .	300 00
Leonard, George . . . . .	400 00
Maguire, Patrick . . . . .	900 00
Rand, Carrie B. . . . .	571 24
Sawyer, Nellie O. . . . .	300 00
Sullivan, Michael . . . . .	1,200 00
Taggard, John H. . . . .	500 00
Vail, Emma L. R. . . . .	100 00
Woodbury, Louisa . . . . .	600 00

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\$11,377 44



The following schedule shows the expenditures from the maintenance appropriation of this division devoted to the various streets in the several districts :

*SOUTH BOSTON.*

A street, <sup>1</sup> Broadway to First street. In excess of special appropriation . . . . .	\$102 47
Dorchester street, <sup>1</sup> Eighth street to Dorchester avenue. In excess of special appropriation . . . . .	68 90
E street, <sup>1</sup> Third street to Bolton street. In excess of special appropriation . . . . .	470 47
First street, <sup>1</sup> N. Y. & N. E. R.R. to F street. In excess of special appropriation . . . . .	1,291 23
Fourth street, <sup>1</sup> G street to H street. In excess of special appropriation . . . . .	28 00
Gustin street. <sup>1</sup> In excess of special appropriation . . . . .	597 14
Harvest street. <sup>1</sup> In excess of special appropriation . . . . .	830 74
Newman street. <sup>1</sup> In excess of special appropriation . . . . .	142 88
Rogers street. <sup>1</sup> In excess of special appropriation . . . . .	264 88
Seventh street, <sup>1</sup> D street towards B street. In excess of special appropriation . . . . .	244 36
Second street, <sup>1</sup> E street to Dorchester street. In excess of special appropriation . . . . .	1,243 99
Sixth street, <sup>1</sup> O street to Q street; repaved between O and P streets — paved between P and Q streets :	
Labor . . . . .	\$228 14
Teaming . . . . .	75 00
Material . . . . .	1,246 75
	1,549 89
Sixth street, <sup>1</sup> H street to I street. In excess of special appropriation . . . . .	108 07
Second street, <sup>1</sup> Granite street to A street. In excess of special appropriation . . . . .	55 74
Ward street. <sup>1</sup> In excess of special appropriation . . . . .	122 00
Washburn street. <sup>1</sup> In excess of special appropriation . . . . .	1,044 92
<i>Amount carried forward,</i>	<b>\$8,165 68</b>

<sup>1</sup> For detail of this work see special appropriations.

## STREET DEPARTMENT.

197

<i>Amount brought forward,</i>		\$8,165 68
Maintenance of macadamized roadways :		
Labor . . . . .	\$2,302 98	
Teaming . . . . .	787 50	
	<hr/>	3,090 48
Crossings, repairs :		
Labor . . . . .	\$94 07	
Material . . . . .	613 44	
	<hr/>	707 51
Crossings, new :		
Labor . . . . .	\$146 02	
Teaming . . . . .	24 00	
Material . . . . .	640 25	
	<hr/>	810 27
Edgestone and sidewalks, repairs :		
Labor . . . . .	\$3,250 18	
Teaming . . . . .	2,292 00	
Material . . . . .	1,281 14	
	<hr/>	6,823 32
Edgestone, sidewalks, and gutters, new :		
Labor . . . . .	\$1,298 80	
Pavers' bills . . . . .	492 58	
Material . . . . .	615 27	
	<hr/>	2,406 65
Fences and plank-walks :		
Labor . . . . .	\$831 49	
Material . . . . .	703 17	
	<hr/>	1,534 66
Repairs :		
Labor . . . . .	\$3,113 76	
Teaming . . . . .	4,054 50	
Pavers' bills . . . . .	251 59	
Material . . . . .	5,810 35	
	<hr/>	13,230 20
Total . . . . .		<hr/> \$36,768 77
Credit on account of city crusher . . . . .		787 96
		<hr/>
		<u>\$35,980 81</u>

## EAST BOSTON.

Bennington street, Prescott street to Wordsworth street: Regulating and grading:

1,218 ft. edgestone set.

432 sq. yds. gutter paving.

776 sq. yds. brick sidewalks relaid.

3,690 sq. yds. of 3-inch macadam.

3,495 cu. yds. filling (taken from sewer trenches).

Labor . . . . .	\$1,987 58
Teaming . . . . .	526 50
Stone and screenings . . . . .	737 90
Roller . . . . .	201 00
Edgestone (622 ft., new) . . . . .	446 20
Pavers' bills . . . . .	158 49
Sand . . . . .	32 00

**\$4,089 67**

Beachmont avenue, Leyden street to Revere: Filling (taken from sewer trenches):

Labor . . . . .	\$868 15
Teaming . . . . .	757 50

**1,625 65**

Belmont square: Gravelled — Edgestones set — Gutter paved — Crossings laid:

Labor . . . . .	\$155 67
Teaming . . . . .	72 00
Street-roller . . . . .	18 00
Material . . . . .	485 55

**731 22**

Eagle square, at Chelsea street.<sup>1</sup> In excess of special appropriation . . . . .

**558 40**

Jeffries and Marginal streets. In excess of special appropriation . . . . .

**516 61**

Lamson street, Sumner street to Webster street: Gravelled — Edgestone set — Brick walks laid:

Labor . . . . .	\$186 75
Teaming . . . . .	66 00
Pavers' bills . . . . .	106 05
Material . . . . .	433 20

**792 00**

*Amount carried forward,*

**\$8,313 55**

<sup>1</sup> For detail of this work see special appropriation.

<i>Amount brought forward,</i>	\$8,313 55
Lewis street: Entire length repaved:	
Labor . . . . .	\$501 32
Teaming . . . . .	115 50
Pavers' bills . . . . .	519 95
Material . . . . .	516 40
	<hr/>
	1,653 17
Morris street, Marion street to Brooks street:	
Gravelled — Edgestone set — Gutters paved	
— Brick sidewalk paved:	
Labor . . . . .	\$549 51
Teaming . . . . .	367 50
Street-roller . . . . .	51 00
Material . . . . .	424 65
	<hr/>
	1,392 66
Porter street, Bremen street to Central square:	
Resurfaced:	
Labor . . . . .	\$390 84
Teaming . . . . .	108 00
Street-roller . . . . .	33 00
Material . . . . .	578 24
	<hr/>
	1,110 08
Putnam street, Chelsea street to Bennington street: Resurfaced:	
Labor . . . . .	\$242 77
Teaming . . . . .	40 50
Street-roller . . . . .	9 00
Material . . . . .	337 03
	<hr/>
	629 30
Sumner street, at Belmont square: Crosswalks laid:	
Labor . . . . .	\$57 60
Teaming . . . . .	24 00
Pavers' bills . . . . .	42 00
Material . . . . .	569 30
	<hr/>
	692 90
Terrace place: Repaved — Edgestone set — Sidewalks laid:	
Labor . . . . .	\$571 69
Teaming . . . . .	96 00
Pavers' bills . . . . .	166 92
	<hr/>
	834 61
Walley street: Resurfaced:	
Labor . . . . .	\$325 16
Teaming . . . . .	217 50
	<hr/>
	542 66
<i>Amount carried forward,</i>	<hr/>
	\$15,168 93

<i>Amount brought forward,</i>		\$15,168 93
Webster street, Cottage street to Jeffries street : Resurfaced :		
Labor . . . . .	\$597 41	
Teaming . . . . .	151 50	
Pavers' bills . . . . .	134 85	
Street-roller . . . . .	78 00	
Material . . . . .	387 79	
	<hr/>	1,349 55
Webster street, at Belmont square : Cross-walks laid :		
Labor . . . . .	\$57 60	
Teaming . . . . .	33 00	
Pavers' bills . . . . .	32 25	
Material . . . . .	558 20	
	<hr/>	681 05
Maintenance of macadamized roadways :		
Labor . . . . .	\$1,634 88	
Teaming . . . . .	462 00	
	<hr/>	2,096 88
Edgestone, sidewalks, and gutters, repairs :		
Labor . . . . .	\$1,769 58	
Teaming . . . . .	856 50	
Pavers' bills . . . . .	21 63	
Material . . . . .	638 26	
	<hr/>	3,285 97
Edgestone, sidewalks, and gutters, new :		
Labor . . . . .	\$229 67	
Teaming . . . . .	12 00	
Pavers' bills . . . . .	71 39	
Material . . . . .	1,220 73	
	<hr/>	1,533 79
Fences and plank-walks :		
Labor . . . . .	\$477 72	
Teaming . . . . .	135 00	
Carpenter . . . . .	378 00	
Material . . . . .	784 73	
	<hr/>	1,775 45
Repairing streets :		
Labor . . . . .	\$9,917 45	
Teaming . . . . .	2,326 50	
Roller . . . . .	145 00	
Pavers' bills . . . . .	57 35	
Material . . . . .	2,873 06	
	<hr/>	15,319 36
Total . . . . .		<hr/> \$41,210 98

## CHARLESTOWN.

Austin street. <sup>1</sup> In excess of special appropriation		\$140 43
Charles-river avenue: Repaved roadway:		
Labor	\$279 36	
Teaming	102 00	
Pavers' bills	419 42	
Material	243 63	
		1,044 41
Dupont street. <sup>1</sup> In excess of special appropriation		121 21
Edgeworth street. <sup>1</sup> In excess of special appropriation		37 25
Parker street: Reset edgestones — Relaid gutters and sidewalks:		
Labor	\$368 70	
Teaming	84 00	
Material	114 17	
		566 87
Maintenance of macadamized roadways:		
Labor	\$1,729 97	
Teaming	1,485 00	
		3,214 97
Edgestones, sidewalk, and gutter, repairs:		
Labor	\$2,288 91	
Teaming	997 50	
Material	1,429 18	
		4,715 59
Fences and plank-walks:		
Labor	\$415 49	
Teaming	54 00	
Carpenter	210 47	
Material	167 08	
		847 04
Repairing streets:		
Labor	\$6,230 82	
Teaming	3,618 00	
Pavers' bills	71 02	
Roller	102 00	
Material	2,602 80	
		12,624 64
Total		\$23,312 41

<sup>1</sup> For detail of this work see special appropriation.

## BRIGHTON.

## Cambridge street, near Gas-house : Resurfacing :

2,860 sq. yds. 4-in. macadam.

Labor . . . . .	\$573 29
Teaming . . . . .	442 18
Pavers' bills . . . . .	65 06
Edgestone . . . . .	28 42
Gravel and sand . . . . .	155 96
Roller . . . . .	84 00
Stone . . . . .	771 40

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\$2,120 31

## Westford street : Regulating and Gravelling :

244 ft. edgestone.

88 sq. yds. gutter paving.

1,820 sq. yds. gravel roadway.

950 sq. yds. gravel sidewalk.

Labor . . . . .	\$743 30
Teaming . . . . .	297 00
Gravel . . . . .	1,163 43
Pavers' bills . . . . .	41 56
Edgestones . . . . .	209 26
Stone . . . . .	43 70

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2,498 25

## Western avenue : Regulating and Resurfacing :

366 ft. edgestone.

123 sq. yds. gutter paving.

5,130 sq. yds. 4-in. macadam.

Labor . . . . .	\$565 07
Teaming . . . . .	600 50
Edgestone . . . . .	104 39
Pavers' bills . . . . .	30 77
Stone . . . . .	1,420 10
Gravel . . . . .	403 76
Roller . . . . .	145 00

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3,269 59Aldie street.<sup>1</sup> In excess of special appropriation. . . . .

247 05

Commonwealth avenue. Entire length repaired where needed :

Labor . . . . .	\$86 40
Teaming . . . . .	348 00
Material . . . . .	1,250 20

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1,684 60

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*Amount carried forward,*

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\$9,819 80<sup>1</sup> For detail of this work see special appropriation.

<i>Amount brought forward,</i>		\$9,819 30
Dunboy street: Grading and Gravelling from Biglow street, 800 feet south:		
Labor . . . . .	\$840 96	
Teaming . . . . .	463 50	
Material . . . . .	547 95	
		1,852 41
Dustin street. <sup>1</sup> In excess of special appropri- ation . . . . .		1,069 79
Mansfield street: Grading — Setting Edge- stones — Gutters:		
Labor . . . . .	\$453 23	
Teaming . . . . .	192 00	
Pavers' bills . . . . .	239 83	
Street-roller . . . . .	63 00	
Material . . . . .	826 51	
		1,774 57
Mount Vernon street. <sup>1</sup> In excess of special appropriation . . . . .		568 10
Hobart street. <sup>1</sup> In excess of special appropri- ation . . . . .		2,213 37
Lake street. <sup>1</sup> In excess of special appropri- ation . . . . .		3,642 91
Oakland street: Grading:		
Labor . . . . .	\$189 11	
Teaming . . . . .	79 50	
Material . . . . .	535 15	
		803 76
Rockland street. Macadamized; Chestnut Hill avenue, south:		
Labor . . . . .	\$91 39	
Teaming . . . . .	60 00	
Steam-roller . . . . .	96 00	
Material . . . . .	422 80	
		670 19
Washington street: Repairs entire length:		
Labor . . . . .	\$103 09	
Teaming . . . . .	87 00	
Street-roller . . . . .	66 00	
Material . . . . .	353 27	
		609 36
Winship street: New crossings, new edge- stones, new sidewalk—Repairs entire length:		
Labor . . . . .	\$48 00	
<i>Amounts carried forward,</i>	\$48 00	\$23,024 26



<i>Amounts brought forward,</i>	\$48 00	\$23,024 26
Teaming . . . . .	81 86	
Pavers' bills . . . . .	56 95	
Material . . . . .	702 43	
	<hr/>	889 24
Maintenance of macadamized roadways :		
Labor . . . . .	\$2,119 35	
Teaming . . . . .	634 50	
	<hr/>	2,753 85
Crossings, new :		
Labor . . . . .	\$209 82	
Teaming . . . . .	60 00	
Material . . . . .	2,100 07	
	<hr/>	2,369 89
Edgestone — Sidewalk and gutters, repaired :		
Labor . . . . .	\$27 75	
Material . . . . .	847 05	
	<hr/>	874 80
Edgestone — Sidewalks and gutters, new :		
Labor . . . . .	\$284 33	
Teaming . . . . .	148 50	
Pavers' bills . . . . .	180 29	
Material . . . . .	1,835 33	
	<hr/>	2,448 45
Fences and plank-walks :		
Labor . . . . .	\$673 04	
Material . . . . .	1,409 64	
	<hr/>	2,082 68
Repairing streets :		
Labor . . . . .	\$8,997 50	
Teaming . . . . .	5,652 00	
Material . . . . .	5,852 45	
Pavers' bills . . . . .	134 22	
Roller . . . . .	84 00	
	<hr/>	20,720 17
Total . . . . .		\$55,163 34
Credit on account of city crusher,		1,181 93
		<hr/>
		<u>\$53,981 41</u>

## WEST ROXBURY.

Canterbury street, Blue Hill avenue to Austin street : Resurfacing :

3,300 sq. yds. 6-in. macadam.

Labor	.	.	.	.	\$188 30
Teaming	.	.	.	.	636 00
Gravel	.	.	.	.	165 20
Roller	.	.	.	.	192 00
Stone	.	.	.	.	1,309 10

\$2,490 60

Centre street, Green to Amory : Resurfacing :

5,500 sq. yds. 4-in. macadam.

Labor	.	.	.	.	\$393 88
Teaming	.	.	.	.	667 50
Stone	.	.	.	.	1,507 13
Gravel	.	.	.	.	531 10
Roller	.	.	.	.	237 00

3,336 61

Hyde Park avenue, Mt. Hope to Hyde Park line : Resurfacing :

5,300 lin. ft. plank-walk.

15,500 sq. yds. 8-in. macadam.

Labor	.	.	.	.	\$464 78
Teaming	.	.	.	.	870 00
Gravel	.	.	.	.	1,466 90
Roller	.	.	.	.	320 00
Stone	.	.	.	.	7,690 90
Lumber	.	.	.	.	569 04

11,381 62

Mozart street : Regulating and resurfacing :

2,600 lin. ft. edgestone.

880 sq. yds. block-stone gutter.

257 sq. yds. brick sidewalk.

2,500 sq. yds. 3-in. macadam.

Labor	.	.	.	.	\$804 50
Teaming	.	.	.	.	316 50
Blocks	.	.	.	.	990 22
Gravel	.	.	.	.	746 10
Pavers' bills	.	.	.	.	474 34
Edgestone	.	.	.	.	1,572 68
Stone	.	.	.	.	498 45
Roller	.	.	.	.	175 00

5,577 79

*Amount carried forward,*

\$22,786 62

<i>Amount brought forward,</i>		\$22,786 62
Mt. Hope street, Hyde park avenue to Canterbury : Resurfacing with gravel :		
5,200 sq. yds. gravel roadway.		
2,700 sq. yds. gravel sidewalk.		
300 sq. yds. gutter relaid.		
Labor . . . . .	\$397 66	
Teaming . . . . .	225 00	
Pavers' bills . . . . .	77 18	
Roller . . . . .	321 00	
Gravel . . . . .	1,453 90	
		<hr/> 2,474 74
School street, Washington to Walnut avenue :		
Regulating and macadamizing :		
2,400 sq. yds. Telford macadam.		
Labor . . . . .	\$380 25	
Teaming . . . . .	587 00	
Gravel . . . . .	261 80	
Roller . . . . .	130 00	
Stone . . . . .	1,774 60	
		<hr/> 3,133 65
South street, near Centre : Resurfacing :		
6,100 sq. yds. 8-in. macadam.		
Labor . . . . .	\$139 80	
Teaming . . . . .	102 00	
Gravel . . . . .	383 60	
Stone . . . . .	2,922 20	
Roller . . . . .	167 00	
		<hr/> 3,714 60
Walkhill street, Paine to Back street : Resurfacing and regulating :		
432 sq. yds. gutter paving.		
2,500 sq. yds. 4-in. macadam.		
Labor . . . . .	\$505 81	
Teaming . . . . .	704 50	
Roller . . . . .	200 00	
Stone . . . . .	671 20	
Gravel . . . . .	751 80	
		<hr/> 2,833 31
Washington street, south of Forest Hills : Resurfacing :		
4,500 sq. yds. 6-in. macadam.		
Labor . . . . .	\$833 31	
Teaming . . . . .	583 50	
		<hr/>
<i>Amounts carried forward,</i>	\$1,416 81	\$34,942 92

## STREET DEPARTMENT.

207

<i>Amounts brought forward,</i>	\$1,416 81	\$34,942 92
Stone . . . . .	1,786 00	
Roller . . . . .	224 00	
	<hr/>	3,426 81
Arnold street, from Weld street to Newton line : Repaired :		
Labor . . . . .	\$9 00	
Teaming . . . . .	118 50	
Material . . . . .	549 50	
	<hr/>	677 00
Baker street. <sup>1</sup> In excess of special appropriation . . . . .		366 00
Ballard street. <sup>1</sup> In excess of special appropriation . . . . .		136 80
Berry street, from Canterbury street to Calvary Cemetery : Resurfaced :		
Labor . . . . .	\$416 31	
Teaming . . . . .	90 00	
Roller . . . . .	145 00	
Material . . . . .	854 00	
	<hr/>	1,505 31
Boynton street, South street to Call street :		
Labor . . . . .	\$34 44	
Material . . . . .	467 75	
	<hr/>	502 19
Call-street extension. <sup>1</sup> In excess of special appropriation . . . . .		599 71
Centre street, near Spring street : Repairs :		
Labor . . . . .	\$56 25	
Teaming . . . . .	163 50	
Material . . . . .	373 10	
	<hr/>	592 85
Danforth street, Boylston street to Paul Gore street : Resurfaced :		
Labor . . . . .	\$549 85	
Teaming . . . . .	372 00	
Paver's Bills . . . . .	206 33	
Material . . . . .	347 10	
	<hr/>	1,475 28
Forbes street : <sup>1</sup> In excess of special appropriation . . . . .		2,095 45
German street : Whole length, construction :		
Labor . . . . .	\$923 85	
Teaming . . . . .	505 50	
	<hr/>	1,429 35
<i>Amount carried forward,</i>		<hr/> <hr/> \$47,749 67

<sup>1</sup> For detail of this work see special appropriation.

<i>Amount brought forward,</i>	\$47,749 67
Goldsmith street. <sup>1</sup> In excess of special appropriation . . . . .	22 88
Hyde Park avenue, near Forest Hills: Resurfaced:	
Labor . . . . .	\$487 55
Teaming . . . . .	142 50
Material . . . . .	504 00
	<hr/> 1,134 05
La Grange street, Partridge street to Martin street: Resurfaced:	
Labor . . . . .	\$228 86
Teaming . . . . .	367 50
Roller . . . . .	55 00
Material . . . . .	1,041 60
	<hr/> 1,692 96
Maynard street. <sup>1</sup> In excess of special appropriation . . . . .	444 93
Oak street. <sup>1</sup> In excess of special appropriation . . . . .	28 16
Paul Gore street, <sup>1</sup> Chestnut avenue to Laramie street: Resurfaced — New edgestone, sidewalks, and gutters:	
Labor . . . . .	\$311 71
Teaming . . . . .	127 50
Street-roller . . . . .	146 00
Material . . . . .	1,191 79
Pavers' bills . . . . .	92 07
	<hr/> 1,869 07
Peter Parley road. <sup>1</sup> In excess of special appropriation . . . . .	46 10
Poplar street, Canterbury street to Metropolitan avenue: Repairs:	
Labor . . . . .	\$335 21
Teaming . . . . .	358 50
Pavers' bills . . . . .	232 65
Material . . . . .	218 40
	<hr/> 1,144 76
Prospect avenue. In excess of special appropriation . . . . .	33 00
Sylvia street. <sup>1</sup> In excess of special appropriation . . . . .	436 25
Symmes street. <sup>1</sup> In excess of special appropriation . . . . .	390 50
<i>Amount carried forward,</i>	<hr/> \$54,992 33

<sup>1</sup> For detail of this work see special appropriation.

## STREET DEPARTMENT.

209

<i>Amount brought forward,</i>	\$54,992 33
Walter street: Repairs:	
Labor . . . . .	\$440 83
Teaming . . . . .	334 50
	<hr/>
	775 33
Weld street, Baker street to Corey street:	
Labor . . . . .	\$123 08
Teaming . . . . .	63 00
Material . . . . .	697 90
	<hr/>
	883 98
Washington, South, and Centre streets. <sup>1</sup> In excess of special appropriation . . . .	9,381 79
Wise street: New edgestones, gutters, and walks:	
Labor . . . . .	\$52 80
Teaming . . . . .	123 00
Pavers' bills . . . . .	94 14
Material . . . . .	506 16
	<hr/>
	776 10
Maintenance of macadamized roadways:	
Labor . . . . .	\$6,014 95
Teaming . . . . .	3,474 00
	<hr/>
	9,488 95
Crossings, repairs:	
Labor . . . . .	\$161 89
Teaming . . . . .	48 00
Material . . . . .	909 92
	<hr/>
	1,119 81
Edgestone — Sidewalks and gutter repairs:	
Teaming . . . . .	\$96 00
Pavers' bills . . . . .	687 27
Material . . . . .	881 61
	<hr/>
	1,664 88
Edgestone — Sidewalk and gutters (new):	
Labor . . . . .	\$347 45
Teaming . . . . .	115 50
Pavers' bills . . . . .	544 34
Material . . . . .	355 86
	<hr/>
	1,363 15
Fences and plank-walks:	
Labor . . . . .	\$1,390 93
Carpenter . . . . .	45 50
Material . . . . .	1,590 53
	<hr/>
	3,026 96
<i>Amount carried forward,</i>	<hr/>
	\$83,473 28

<sup>1</sup> For detail of this work see special appropriation.

<i>Amount brought forward,</i>		\$83,473 28
Repairing streets :		
Labor . . . . .	\$9,444 77	
Teaming . . . . .	17,161 00	
Pavers' bills . . . . .	200 72	
Roller . . . . .	147 00	
Material . . . . .	14,577 90	
	<hr/>	41,531 39
Total . . . . .		\$125,004 67
Credit on account of city crushers . . . . .		1,575 91
		<hr/>
		\$123,428 76

*DORCHESTER.*

Adams street, Dorchester avenue to Park street : Paving gutters and macadamizing :  
360 sq. yds. block-stone gutters.

3,000 sq. yds. 6-in. macadam :

Labor . . . . .	\$1,099 72
Teaming . . . . .	181 50
Gravel . . . . .	159 00
Stone . . . . .	1,235 00
Roller . . . . .	49 00

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\$2,724 22

Blue Hill avenue, Wales to Harvard street :  
333 feet edgestone reset.

112 sq. yds. gutter paving.

6,000 sq. yds. 6-in. macadam. :

Labor . . . . .	\$863 75
Teaming . . . . .	568 74
Gravel . . . . .	430 50
Stone . . . . .	2,363 40
Roller . . . . .	196 00

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4,422 39

Codman street, Adams to Shawmut Branch R.R. : Regulating and macadamizing :  
608 feet edgestone.

203 sq. yds. gutters.

163 sq. yds. brick sidewalk.

2,350 sq. yds. 6-in. macadam.

720 sq. yds. gravel sidewalk.

Labor . . . . .	\$558 87
Teaming . . . . .	165 00
Paving-blocks . . . . .	223 08

*Amounts carried forward,*

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\$946 95

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\$7,146 61

## STREET DEPARTMENT.

211

<i>Amounts brought forward,</i>	\$946 95	\$7,146 61
Edgestone . . . . .	364 80	
Pavers' bills . . . . .	125 98	
Gravel . . . . .	112 50	
Roller . . . . .	84 00	
Stone . . . . .	959 00	
	<hr/>	2,593 23

Dracut street: Regulating and macadamizing :  
2,332 lin. ft. edgestone.

323 sq. yds. block-stone gutters.

450 sq. yds. round stone gutters.

2,450 sq. yds. 8-in. macadam.

1,600 sq. yds. gravel sidewalk.

Labor . . . . .	\$1,983 64
Teaming . . . . .	742 67
Stone . . . . .	1,225 00
Blocks . . . . .	367 96
Pavers' bills . . . . .	386 25
Gravel . . . . .	388 50
Roller . . . . .	112 00
	<hr/>

5,206 02

Washington street, Norfolk to Columbia :  
Resurfacing and regulating :

7,000 sq. yds. 3-in. macadam — Edgestones  
reset — Gutters relaid :

Labor . . . . .	\$338 55
Teaming . . . . .	504 50
Roller . . . . .	154 00
Stone . . . . .	1,388 90
Gravel . . . . .	331 80
Pavers' bills . . . . .	229 37
	<hr/>

2,947 12

Abbot street, Blue Hill avenue to Harvard  
street: Resurfaced :

Labor . . . . .	\$236 08
Teaming . . . . .	174 00
Roller . . . . .	81 00
Material . . . . .	405 60
	<hr/>

896 68

Adams street, King street to Beaumont  
street: Resurfaced :

Labor . . . . .	\$247 08
Teaming . . . . .	126 00
	<hr/>

*Amounts carried forward,*

\$373 08

\$18,789 66



<i>Amounts brought forward,</i>	\$373 08	\$18,789 66
Roller . . . . .	134 00	
Material . . . . .	1,114 60	
	<hr/>	1,621 68
Ashmont street. <sup>1</sup> In excess of special appropriation . . . . .		679 00
Blue Hill avenue, Quincy street to Grove Hall: Resurfaced:		
Labor . . . . .	\$67 50	
Teaming . . . . .	258 00	
Material . . . . .	273 60	
	<hr/>	599 10
Boston street, Stoughton street to Eastman street: Resurfaced:		
Material . . . . .		660 80
Bushnell street. <sup>1</sup> In excess of special appropriation . . . . .		1,619 51
Carruth street, Beaumont street to New Minot street: Macadamizing — Resetting edge-stones — New gutters:		
Labor . . . . .	\$517 27	
Teaming . . . . .	90 00	
Roller . . . . .	21 00	
Material . . . . .	584 90	
	<hr/>	1,213 17
Codman street, Dorchester avenue to Washington street: Macadamizing:		
Labor . . . . .	\$142 98	
Teaming . . . . .	127 50	
Roller . . . . .	98 00	
Material . . . . .	718 00	
	<hr/>	1,086 48
Gleason street, Harvard street to White street: Macadamized:		
Labor . . . . .	\$170 28	
Teaming . . . . .	100 92	
Material . . . . .	384 56	
Roller . . . . .	105 00	
	<hr/>	760 76
Granite avenue. <sup>1</sup> In excess of special appropriation . . . . .		3,204 21
<i>Amount carried forward,</i>		<hr/> \$30,234 37

<sup>1</sup> For detail of this work see special appropriation.

<i>Amount brought forward,</i>	\$30,234 37
Hancock street : Widening at Upham's Corner :	
Labor . . . . .	\$512 28
Teaming . . . . .	165 00
Excavating . . . . .	57 50
Pavers' bills . . . . .	85 90
Roller . . . . .	42 00
Material . . . . .	360 50
	<hr/>
	1,223 18
Magnolia street. <sup>1</sup> In excess of special appropriation . . . . .	304 08
Neponset avenue. <sup>1</sup> In excess of special appropriation . . . . .	5,161 26
Pleasant street, Stoughton street to Victoria street : Resurfaced :	
Labor . . . . .	\$61 80
Teaming . . . . .	120 00
Material . . . . .	358 86
	<hr/>
	540 66
Sturbridge street, River street to Sanford street : Filling :	
Labor . . . . .	\$108 37
Material . . . . .	453 85
	<hr/>
	562 22
Victoria street, from Pleasant street, east, towards Dorchester avenue : Repairing concrete sidewalk — Resetting edgestone and gutters :	
Labor . . . . .	\$87 29
Teaming . . . . .	27 00
Pavers' bills . . . . .	66 64
Material . . . . .	469 38
	<hr/>
	650 31
Maintenance of macadamized roadways :	
Labor . . . . .	\$3,218 38
Teaming . . . . .	1,209 00
	<hr/>
	4,427 38
Edgestone— Sidewalk and gutter, repairs :	
Labor . . . . .	\$1,044 64
Teaming . . . . .	675 00
Pavers' bills . . . . .	45 97
Material . . . . .	822 49
	<hr/>
	2,588 10
<i>Amount carried forward,</i>	<hr/>
	\$45,691 56

<sup>1</sup> For detail of this work see special appropriation. Digitized by Google

<i>Amount brought forward,</i>	\$45,691 56
Edgestone — Sidewalks and gutters (new) :	
Labor . . . . .	\$137 50
Teaming . . . . .	451 61
Pavers' bills . . . . .	669 84
Material . . . . .	3,797 26
	<hr/>
	5,056 21
Fences and plank-walks :	
Labor . . . . .	\$1,667 50
Teaming . . . . .	6 00
Carpenter . . . . .	42 00
Material . . . . .	2,049 10
	<hr/>
	3,764 60
Repairs :	
Labor . . . . .	\$8,578 81
Teaming . . . . .	8,707 50
Roller . . . . .	350 13
Pavers' bills . . . . .	95 63
Material . . . . .	13,978 87
Excavating . . . . .	325 00
	<hr/>
	32,035 94
Total . . . . .	<hr/>
	\$86,548 31
Credit on account of city crushers . . . . .	2,363 87
	<hr/>
	<u>\$84,184 44</u>

## ROXBURY.

Blue Hill avenue, Quincy to Warren : Regulating and resurfacing :

386 ft. edgestone.

127 sq. yds. block-stone gutters.

353 sq. yds. brick sidewalk.

1,900 sq. yds. 6-in. macadam.

Labor . . . . .	\$568 61
Teaming . . . . .	259 84
Edgestone . . . . .	325 68
Pavers' bills . . . . .	118 01
Sand . . . . .	107 20
Gravel . . . . .	302 40
Stone . . . . .	758 80
Rollers . . . . .	90 00
Blocks . . . . .	86 71
	<hr/>
	\$2,617 25
<i>Amount carried forward,</i>	<hr/>
	\$2,617 25

*Amount brought forward,* \$2,617 25  
 Bower street : Regulating— Grading and mac-

adamizing :

1,280 ft. edgestone reset.

467 sq. yds. block-stone gutters.

264 sq. yds. brick sidewalk.

1,700 sq. yds. 6-in. macadam.

Labor . . . . .	\$461 41
Teaming . . . . .	166 14
Sand . . . . .	94 40
Gravel . . . . .	327 60
Stone . . . . .	672 70
Brick . . . . .	19 50
Edgestone . . . . .	82 56
Pavers' bills . . . . .	271 57
Roller . . . . .	98 00

2,193 88

Harold street : Regulating and macadamizing :

662 ft. edgestone.

208 sq. yds. block-stone gutters.

217 sq. yds. brick sidewalk.

1,400 sq. yds. 6-in. macadam.

Labor . . . . .	\$179 49
Teaming . . . . .	161 37
Edgestone . . . . .	585 70
Pavers' bills . . . . .	143 87
Gravel . . . . .	291 20
Roller . . . . .	140 00
Stone . . . . .	569 62
Flagging . . . . .	124 80

2,196 05

Kendall street : Regulating and resurfacing :

2,164 ft. edgestone reset.

772 sq. yds. gutter repaved.

1,324 sq. yds. brick sidewalk relaid.

2,300 sq. yds. 3-in. macadam.

Labor . . . . .	\$916 47
Teaming . . . . .	500 14
Sand . . . . .	90 10
Gravel . . . . .	247 09
Rollers . . . . .	174 50
Stone . . . . .	1,035 34
Pavers' bills . . . . .	616 18
Brick . . . . .	232 06

3,811 88

*Amount carried forward,*

\$10,819 06

<i>Amount brought forward,</i>	\$10,819 06
Roxbury street, Highland to Tremont: Regulating and resurfacing:	
5,900 sq. yds. 3-in. macadam.	
Labor . . . . .	\$88 77
Teaming . . . . .	106 00
Gravel . . . . .	253 40
Stone . . . . .	1,141 27
Roller . . . . .	144 00
Block . . . . .	100 38
Flagging . . . . .	182 40
	<hr/>
	2,016 22
Calumet street: Grading:	
Labor . . . . .	\$560 22
Teaming . . . . .	225 00
	<hr/>
	785 22
Cabot street. <sup>1</sup> In excess of special appropriation . . . . .	1,792 94
Cheney street, Blue Hill avenue to Hartwell street: Resurfaced — Edgestone — Gutters — Sidewalks:	
Labor . . . . .	\$109 77
Teaming . . . . .	66 36
Pavers' bills . . . . .	29 26
Roller . . . . .	35 00
Material . . . . .	498 58
	<hr/>
	738 97
Cliff street. <sup>1</sup> In excess of special appropriation . . . . .	314 61
Centre street. In excess of special appropriation . . . . .	1,639 77
Dunmore street: Macadamized — New edgestone — Sidewalk and gutters:	
Labor . . . . .	\$539 09
Teaming . . . . .	255 00
Pavers' bills . . . . .	123 28
Roller . . . . .	46 00
Material . . . . .	538 66
	<hr/>
	1,502 03
Dudley street, at Norfolk House. In excess of special appropriation . . . . .	1,258 74
	<hr/>
<i>Amount carried forward,</i>	\$20,867 56

<sup>1</sup> For detail of this work see special appropriation.

<i>Amount brought forward,</i>	\$20,867 56
East Lenox street, Washington street to Fellows street: Edgestones and sidewalks (new):	
Labor . . . . .	\$124 41
Teaming . . . . .	15 00
Pavers' bills . . . . .	246 43
Material . . . . .	120 96
	<hr/>
	506 80
Elmore street, Mayfair street to Washington street: Edgestones — Gutters — Sidewalks — Resurfaced:	
Labor . . . . .	\$405 63
Teaming . . . . .	165 02
Pavers' bills . . . . .	136 19
Material . . . . .	698 80
	<hr/>
	1,405 64
Elmwood street, Roxbury street to King street: Macadamized — Edgestone — Side- walks — Gutters:	
Pavers' bills . . . . .	\$59 58
Street-roller . . . . .	54 00
Material . . . . .	388 08
	<hr/>
	501 66
Guild row: Widened — Repaved — Edgestone reset:	
Labor . . . . .	\$644 13
Material . . . . .	818 24
	<hr/>
	1,462 37
Hampshire street. <sup>1</sup> In excess of special ap- propriation . . . . .	694 80
Howland street. <sup>1</sup> In excess of special appro- priation . . . . .	1,827 78
Humboldt avenue. In excess of special appro- priation . . . . .	15,999 61
Humboldt avenue, Walnut avenue to Craw- ford street: Resurfaced — Edgestone — Side- walk — Gutter:	
Labor . . . . .	\$161 34
Teaming . . . . .	90 00
Pavers' bills . . . . .	166 10
Material . . . . .	632 34
	<hr/>
	1,049 78
<i>Amount carried forward,</i>	<hr/>
	\$44,316 00

<sup>1</sup> For detail of this work see special appropriation.

<i>Amount brought forward,</i>	\$44,316 00
Kensington street: Edgestone — Sidewalk — Gutters:	
Labor . . . . .	\$145 71
Teaming . . . . .	72 00
Pavers' bills . . . . .	91 11
Material . . . . .	328 98
	<hr/>
	637 80
Laurel street, at Humboldt avenue: Resurfaced — Edgestone — Sidewalks — Gutters:	
Labor . . . . .	\$183 16
Teaming . . . . .	91 35
Pavers' bills . . . . .	73 32
Roller . . . . .	14 00
Material . . . . .	375 75
	<hr/>
	737 58
Lenox street. <sup>1</sup> In excess of special appropriation . . . . .	3,097 69
Moreland street. <sup>1</sup> In excess of special appropriation . . . . .	40 21
Monroe street: Hazelwood street to 500 feet west, Humboldt avenue: Resurfaced — Edgestone:	
Labor . . . . .	\$670 64
Teaming . . . . .	312 00
Pavers' bills . . . . .	41 11
Roller . . . . .	7 00
Material . . . . .	92 40
	<hr/>
	1,123 15
Parker street. <sup>1</sup> In excess of special appropriation . . . . .	4,483 48
Ruggles street, Washington street to Tremont street: Resurfaced:	
Labor . . . . .	\$81 48
Teaming . . . . .	44 74
Roller . . . . .	120 00
Material . . . . .	398 00
	<hr/>
	644 22
Shirley street. <sup>1</sup> In excess of special appropriation . . . . .	254 86
<i>Amount carried forward,</i>	<hr/>
	\$55,334 99

<sup>1</sup> For detail of this work see special appropriation.

<i>Amount brought forward,</i>		\$55,334 99
Sterling street, Washington street to Shawmut avenue: Macadamized — Edgestone — Sidewalks:		
Labor . . . . .	\$70 12	
Teaming . . . . .	29 88	
Pavers' bills . . . . .	265 22	
Roller . . . . .	22 50	
Material . . . . .	288 91	
		676 63
Townsend street, Walnut avenue to Humboldt avenue: Macadamized — Edgestone — Sidewalks and gutters:		
Labor . . . . .	\$44 05	
Teaming . . . . .	31 35	
Pavers' bills . . . . .	130 52	
Roller . . . . .	28 00	
Material . . . . .	414 80	
		648 72
Tremont street, Huntington avenue to Brookline line: Resurfaced:		
Labor . . . . .	\$122 23	
Teaming . . . . .	156 00	
Roller . . . . .	266 00	
Material . . . . .	720 17	
		1,264 40
Washington street, Cedar street to Circuit street: Repaved:		
Pavers' bills . . . . .	\$495 11	
Material . . . . .	217 00	
		712 11
Waumbuck street. <sup>1</sup> In excess of special appropriation . . . . .		3,919 21
Walden street: Macadamized — Edgestone — Sidewalk:		
Pavers' bills . . . . .	\$12 50	
Material . . . . .	747 87	
		760 37
Westminster street: Resurfaced — New edgestone and gutters — Reset edgestones:		
Labor . . . . .	\$65 89	
Teaming . . . . .	15 00	
Pavers' bills . . . . .	185 42	
<i>Amounts carried forward,</i>	\$266 31	\$63,316 43

<sup>1</sup> For detail of this work see special appropriation.



<i>Amounts brought forward,</i>	\$266 31	\$63,316 43
Roller . . . . .	37 50	
Material . . . . .	738 00	
		1,041 81
<b>Williams street: Resurfaced from Westminster to Washington — Edgestone and gutters:</b>		
Labor . . . . .	\$311 66	
Teaming . . . . .	217 50	
Pavers' bills . . . . .	33 52	
Roller . . . . .	90 00	
Material . . . . .	688 99	
		1,341 67
<b>Maintenance of macadamized roadways:</b>		
Labor . . . . .	\$4,544 20	
Teaming . . . . .	2,923 50	
		7,467 70
<b>Crossings (new):</b>		
Labor . . . . .	\$52 78	
Teaming . . . . .	13 50	
Material . . . . .	743 16	
		809 44
<b>Edgestone, sidewalks, gutters, repaired:</b>		
Labor . . . . .	\$3,116 29	
Teaming . . . . .	3,066 00	
Pavers' bills . . . . .	115 34	
Material . . . . .	2,559 43	
		8,857 06
<b>Edgestone, sidewalks, gutters (new):</b>		
Labor . . . . .	\$1,050 02	
Teaming . . . . .	1,107 00	
Pavers' bills . . . . .	4,357 13	
Material . . . . .	5,550 43	
		12,064 58
<b>Fences and plank-walks:</b>		
Labor . . . . .	\$1,129 05	
Material . . . . .	1,471 12	
		2,600 17
<b>Repairs on streets:</b>		
Labor . . . . .	\$7,453 03	
Teaming . . . . .	14,857 17	
Pavers' bills . . . . .	362 65	
Roller . . . . .	168 00	
Material . . . . .	24,762 49	
		47,603 34
Total . . . . .		\$145,102 20
Credit on account of city crushers . . . . .		2,757 85
Total . . . . .		<u>\$142,344 35</u>

## CITY PROPER.

Commonwealth avenue, W. Chester park to

Cross-roads: Regulating and resurfacing:

640 ft. edgestone.

236 sq. yds. block-stone gutter.

2,200 sq. yds. Telford macadam:

Labor	.	.	.	.	\$391 84
Teaming	.	.	.	.	273 00
Pavers' bills	.	.	.	.	107 00
Screenings	.	.	.	.	220 50
Gravel	.	.	.	.	44 80
Flagging	.	.	.	.	58 56
Stone	.	.	.	.	1,725 12
Roller	.	.	.	.	214 00
Blocks	.	.	.	.	425 55

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\$3,460 37

Exeter street: Regulating and resurfacing:

640 ft. edgestone.

369 sq. yds. stone gutter.

113 sq. yds. brick sidewalk.

1,800 sq. yds. Telford macadam:

Labor	.	.	.	.	\$218 25
Teaming	.	.	.	.	312 00
Pavers' bills	.	.	.	.	292 64
Gravel	.	.	.	.	254 40
Stone	.	.	.	.	1,490 60
Roller	.	.	.	.	170 00

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2,737 89

Albany street. In excess of special appropriation

165 90

Atlantic avenue, Clinton street to Central wharf: Repaving:

Teaming	.	.	.	.	\$24 00
Pavers' bills	.	.	.	.	534 18

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558 18Atlantic avenue.<sup>1</sup> In excess of special appropriation

97 36

Batterymarch street.<sup>1</sup> In excess of special appropriation

136 00

Bedford street.<sup>1</sup> In excess of special appropriation

1,139 56

Beacon street.<sup>1</sup> In excess of special appropriation

4,727 87

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Amount carried forward,

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\$13,023 13<sup>1</sup> For detail of this work see special appropriation.

<i>Amount brought forward,</i>		\$13,023 13
Blagden street: Resurfaced:		
Labor . . . . .	\$77 37	
Teaming . . . . .	108 00	
Material . . . . .	634 60	
		819 97
Camden street. <sup>1</sup> In excess of special appropriation . . . . .		1,871 41
Columbia street. <sup>1</sup> In excess of special appropriation . . . . .		942 84
Charles-river avenue: Repaving:		
Labor . . . . .	\$87 08	
Teaming . . . . .	40 50	
Pavers' bills . . . . .	132 55	
Material . . . . .	256 34	
		516 47
Cleveland place. <sup>1</sup> In excess of special appropriation . . . . .		86 77
Court street, Washington street to Court square: Asphaltting:		
Labor . . . . .	\$258 77	
Teaming . . . . .	84 00	
Asphaltting . . . . .	1,052 50	
Pavers' bills . . . . .	93 72	
Removing stone . . . . .	135 50	
Material . . . . .	44 21	
		1,668 70
Dalton and Dundee streets: Macadamizing — New edgestones — Sidewalk — Gutters:		
Labor . . . . .	\$303 57	
Teaming . . . . .	240 00	
Pavers' bills . . . . .	43 40	
Material . . . . .	170 30	
		757 27
East Concord street. <sup>1</sup> In excess of special appropriation . . . . .		1,339 19
Emerald street. <sup>1</sup> In excess of special appropriation . . . . .		126 81
East Newton street. <sup>1</sup> In excess of special appropriation . . . . .		224 00
Friend street, Washington to Sudbury st.: Repaving:		
Labor . . . . .	\$396 76	
<i>Amounts carried forward,</i>	\$396 76	\$21,376 56

<sup>1</sup> For detail of this work see special appropriation.

<i>Amounts brought forward,</i>	\$396 76	\$21,376 56
Teaming . . . . .	96 00	
Material . . . . .	160 35	
	<hr/>	653 11
Hanover street, Cross to Clark : Repaving portions :		
Labor . . . . .	\$374 80	
Teaming . . . . .	366 00	
Material . . . . .	905 74	
	<hr/>	1,646 54
Hollis street. <sup>1</sup> In excess of special appropriation <sup>1</sup> . . . . .		103 57
Hudson street. <sup>1</sup> In excess of special appropriation . . . . .		665 34
Huntington avenue, R.R. to Dartmouth street : Resurfaced — New edgestones and sidewalks :		
Labor . . . . .	\$220 50	
Teaming . . . . .	118 50	
Pavers' bills . . . . .	202 17	
Material . . . . .	591 14	
	<hr/>	1,132 31
Kilby street, State to Milk street : Asphaltting,		1,835 60
Kingston street. <sup>1</sup> In excess of special appropriation . . . . .		1,548 64
Knapp street : Regulating and repairing :		
Labor . . . . .	\$272 40	
Teaming . . . . .	283 50	
Pavers' bills . . . . .	225 02	
Material . . . . .	243 54	
	<hr/>	1,024 46
Malden street. <sup>1</sup> In excess of special appropriation . . . . .		503 99
Matthews street. <sup>1</sup> In excess of special appropriation . . . . .		280 41
Moon street. <sup>1</sup> In excess of special appropriation . . . . .		239 03
Newbury street, West Chester park to Charlesgate East : Resurfaced :		
Labor . . . . .	\$116 16	
Teaming . . . . .	287 28	
Roller . . . . .	189 00	
Material . . . . .	1,348 31	
	<hr/>	1,940 75
<i>Amount carried forward,</i>		<hr/> \$32,950 31

<sup>1</sup> For detail of this work see special appropriation.

<i>Amount brought forward,</i>	\$32,950 31
Oneida street. <sup>1</sup> In excess of special appropriation . . . . .	201 11
Parkman street. <sup>1</sup> In excess of special appropriation . . . . .	144 00
Parnell street: New edgestones: — Sidewalks and gutters:	
Labor . . . . .	\$368 81
Teaming . . . . .	150 00
Material . . . . .	334 11
	<hr/>
	852 92
Pemberton square. <sup>1</sup> In excess of special appropriation . . . . .	605 20
Pinckney street: Resurfaced:	
Labor . . . . .	\$253 65
Teaming . . . . .	283 50
Material . . . . .	419 82
	<hr/>
	956 97
Richmond street. <sup>1</sup> In excess of special appropriation . . . . .	715 73
Rochester street. <sup>1</sup> In excess of special appropriation . . . . .	176 60
Scotia, Cambria, and Bothnia streets. In excess of special appropriation . . . . .	369 66
Seneca street. <sup>1</sup> In excess of special appropriation . . . . .	254 60
Somerset street, at new Court House: Macadamized — Edgestones set — Sidewalks laid — Gutters paved — Edgestones and brick furnished by Court House Commissioners:	
Labor . . . . .	\$175 13
Teaming . . . . .	338 00
Roller . . . . .	14 00
Pavers' bills . . . . .	81 18
Material . . . . .	339 16
	<hr/>
	947 47
St. Botolph street, at College of Pharmacy. Owner furnished brick:	
Labor . . . . .	\$231 86
Teaming . . . . .	51 00
Pavers' bills . . . . .	277 65
Material . . . . .	952 53
Roller . . . . .	30 00
	<hr/>
	1,543 04
<i>Amount carried forward,</i>	<hr/>
	\$39,717 61

<sup>1</sup> For detail of this work see special appropriation.

<i>Amount brought forward,</i>	\$39,717 61
Staniford street, Causeway street to Green street :	
Labor . . . . .	\$177 92
Teaming . . . . .	117 00
Material . . . . .	251 00
	<hr/>
	545 92
Stoughton street. <sup>1</sup> In excess of special appropriation . . . . .	1,274 24
Tremont street. <sup>1</sup> In excess of special appropriation . . . . .	1,725 34
Troy street. <sup>1</sup> In excess of special appropriation . . . . .	429 37
Warrenton street. <sup>1</sup> In excess of special appropriation . . . . .	184 60
Waltham street. <sup>1</sup> In excess of special appropriation . . . . .	1,025 97
West Chester park. <sup>1</sup> In excess of special appropriation . . . . .	593 60
West Chester park, Huntington avenue to Beacon street: Repaired :	
Labor . . . . .	\$17 20
Teaming . . . . .	12 00
Material . . . . .	1,539 38
	<hr/>
	1,568 58
West Newton street. <sup>1</sup> In excess of special appropriation . . . . .	673 30
Well street. <sup>1</sup> In excess of special appropriation . . . . .	312 75
Repairing asphalt-paved streets :	
Labor . . . . .	\$20 37
Teaming . . . . .	1 50
Material } . . . . .	1,614 79
Asphalting }	
	<hr/>
	1,636 66
Maintenance of macadamized roadways :	
Labor . . . . .	\$7,191 19
Teaming . . . . .	4,836 50
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	12,027 69
Crossing repairs :	
Labor . . . . .	\$3,076 28
Teaming . . . . .	388 50
Material . . . . .	5,853 20
	<hr/>
	9,317 98
<i>Amount carried forward,</i>	\$71,033 61

<sup>1</sup> For detail of this work see special appropriation.

<i>Amount brought forward,</i>		\$71,033 61
Crossings (new) :		
Labor . . . . .	\$173 18	
Teaming . . . . .	82 50	
Material . . . . .	1,145 61	
	<hr/>	1,401 29
Edgestone, sidewalk, and gutter repaired :		
Labor . . . . .	\$8,894 39	
Teaming . . . . .	6,109 50	
Pavers' bills . . . . .	2,008 50	
Material . . . . .	8,435 69	
	<hr/>	25,448 08
Edgestone, sidewalks, gutters (new) :		
Labor . . . . .	\$753 60	
Teaming . . . . .	405 00	
Pavers' bills . . . . .	1,355 83	
Material . . . . .	2,842 66	
	<hr/>	5,357 09
Fences and plank-walks :		
Labor . . . . .	\$1,796 82	
Teaming . . . . .	37 50	
Material . . . . .	2,672 87	
	<hr/>	4,507 19
Repairs on streets :		
Labor . . . . .	\$25,445 89	
Teaming . . . . .	12,524 76	
Pavers' bills . . . . .	2,992 68	
Material . . . . .	26,730 33	
Roller . . . . .	87 00	
	<hr/>	66,780 66
Total . . . . .		\$174,527 92
Credit on account material . . . . .		3,151 82
		<hr/>
		<u>\$171,376 10</u>

## SPRINKLING STREETS.

## SOUTH BOSTON.

Labor . . . . .	\$899 58
Water-carts . . . . .	3,567 75
Cochituate Water-Works . . . . .	309 28
Boston street (by contract) . . . . .	443 74
Dorchester avenue (by contract) . . . . .	173 34
Dorchester street (by contract) . . . . .	416 00
Swett street (by contract) . . . . .	277 34
First street (by contract) . . . . .	75 00

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\$6,162 03

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## EAST BOSTON.

Labor . . . . .	\$5 06
Water-carts . . . . .	2,115 00
Cochituate Water-Works . . . . .	553 88
Sumner street; Orleans street; Cottage street; Maverick street; Everett street; Saratoga street; Bennington street; Marion street; Paris street; Havre street; London street; Falcon street; White street; Eutaw street; Monmouth street; Brook street; Prescott street; Border street; Marion street; Decatur street; Bremen street; Chelsea street (by contract) . . . . .	3,379 33

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\$6,053 27

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## CHARLESTOWN.

Labor . . . . .	\$325 48
Water-carts . . . . .	2,143 50
Mystic Water-Works . . . . .	485 24
Rutherford avenue and Alfred street (macadamized portion) — by contract . . . . .	928 67
Lincoln street; Walker street; High street; Russell street; Middlesex street; Lynde-boro street (by contractor) . . . . .	197 16
Main street (Walker to Baldwin); Mystic avenue; Dorrance street; Arlington avenue; Cambridge street; Haverhill street; Kingston street; Sever street; Gardiner street (by contract) . . . . .	801 00

*Amount carried forward,*

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\$4,881 05



<i>Amount brought forward,</i>	\$4,881 05
Winthrop street; Sullivan street; Russell street; Pearl street; Bartlett street; Jenner street; Rutherford avenue (Devens to Chapman); Rutherford avenue (Devens to Union) — by contract . . . . .	477 50
Bartlett street; Monument square; Elm street (High to Bunker Hill street); Green street (High to Bunker Hill street); Chestnut street (Monument square to Chelsea street); Cordis street (Warren street to High street); Summer street (Elm street to Pearl street) — by contract . . . . .	462 50
Main street (Miller street to City square); Rutherford avenue (So. Eden to Chapman street); Chapman street (Main street to Austin street); Washington street (Bow street to Austin street); Union street; Austin street; Cordis street (by contract) . . . . .	410 50
Essex street; Mill street; Harvard street; Prescott street; Lawrence street; Miller street; Henley street (Harvard square to Main street); Winthrop street (Warren streets to Common street); Lynde street; Harvard square; Devens street; Bow street; Charles River and Warren avenues; Mason street; Benedict street; Soley street; Arrow street; Short street; Washington street; Stacy street; Park street (City square to Warren street) — by contract . . . . .	752 68
	<hr/>
	<u>\$6,984 23</u>

## BRIGHTON.

Labor . . . . .	\$311 84
Water-carts . . . . .	10,167 50
Cochituate Water-Works . . . . .	3,416 03
	<hr/>
	<u>\$13,895 37</u>

## WEST ROXBURY.

Labor . . . . .	\$434 36
Water-carts . . . . .	7,497 00
Cochituate Water-Works . . . . .	2,591 69
	<hr/>

*Amount carried forward,*\$10,523 05

## STREET DEPARTMENT.

229

<i>Amount brought forward,</i>	\$10,523 05
Walk Hill street, Hyde Park avenue (Forest Hills to Walk Hill street) — by contract .	784 88
Mount Hope street; Berry street; Hyde Park avenue; (Walk Hill street to Hyde Park line) — by contract . . . . .	1,021 68
Mozart street; Burr street; Clive street; Roys street; Hoffman street; Lamartine street; St. John street; Spring park avenue; Paul Gore street; Sheridan street; Wyman street; Day street; Chestnut avenue; Wise street; Rockview street; Bell street; Oakdale street; Armstrong street; Ashley street; Danforth street; Custer street; Centre street (Pond street to the bridge); Boylston street (Centre street to the R.R.) — by contract . . . . .	1,549 16
Weld avenue; Cornwall street; Robeson street; Sigourney street; Glen road; Brookside avenue; Woodside avenue; Forest Hills street; Williams street; Egleston street; Copley street; Green street (R.R. to Forest Hills) — by contract . . . . .	563 34
Washington street (Green street to Forest Hills depot); Forest Hills depot square (by contract) . . . . .	29 06
Morton street (Washington street to Forest Hills Cemetery) — by contract . . . . .	574 07
Boylston avenue; Armory street; School street; Boylston street; Jess street; Porter street (by contract) . . . . .	531 90
Beethoven street; Atherton street; Walnut avenue; Arcadia street; Seaver street (by contract) . . . . .	577 87
Prince street; Perkins street; Carolina avenue; Pond street (Centre street to Brookline line); Centre street (May street to Arboretum); Chestnut street, near Perkins street (by contract) . . . . .	963 00
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	<b>\$17,118 01</b>

## DORCHESTER.

Labor . . . . .	\$674 54
Water-carts . . . . .	7,162 25
	<hr/>
<i>Amount carried forward,</i>	\$7,836 79

<i>Amount brought forward,</i>	\$7,836 79
Cochituate Water-Works . . . . .	2,756 99
Bowdoin avenue; Tremlett street; Mather street; Nixon street; Allston street; Melville avenue; Washington street (Bowdoin to Centre); Hooper street; Wheatland avenue; Dorchester avenue (Field's Corner to Mather street) — by contract . . . . .	1,172 50
Hancock street (Columbia to Eaton square); Eaton square; Bowdoin street; Columbia street (Bridge to Quincy street); Washington street (Grove Hall to Bowdoin street) — by contract . . . . .	2,249 07
Dorchester avenue (Field's Corner to Mount Vernon street) — by contract . . . . .	370 50
Pleasant street; Commercial street (Hancock street to Dorchester avenue); Commercial street (R.R. to Mill street); Park street (R.R. to Adams street); Savin Hill avenue (R.R. to Pleasant street); Dudley street (Dorchester avenue to Upham's Corner); Stoughton street; Thornley street; Hancock street (Upham's Corner to Columbia street); Boston street (Upham's Corner to Mount Vernon street); Cottage street; Humphreys street; Sumner street; Adams street (Field's Corner to Meeting-House Hill) — by contract . . . . .	1,118 00
	<hr/>
	<u>\$15,503 85</u>

## ROXBURY.

Labor . . . . .	\$1,058 73
Water-carts . . . . .	5,112 80
Cochituate Water-Works . . . . .	1,720 63
Tremont street (Parker street to Brookline line); Huntington avenue (West Chester Park to Tremont street); Longwood avenue (Brookline avenue to Parker street) — by contract . . . . .	1,987 44
Francis street and Brookline avenue (by contract) . . . . .	1,056 90
Crawford street; Elm Hill avenue; Maple street; Waumbek street (by contract) . . . . .	603 80
	<hr/>
<i>Amount carried forward,</i>	\$11,540 30

<i>Amount brought forward,</i>	\$11,540 30
Bellevue street; Wigglesworth street; Worthington street (by contract)	213 17
Albany street (Northampton street to Eustis street); Warren street (Dudley street to Blue Hill avenue); Dudley street (Eliot square to Brook avenue); Blue Hill avenue (Dudley to Columbia street) — by contract,	2,007 99
Centre street (Cedar street to Highland street); Cedar street (Centre street to Washington street); Dudley street (Highland street to Warren street); Dale street (Walnut avenue to Warren street); Hammond street; Ball street; Highland street (Cedar to Eliot square); Ruggles street (Warwick street to Washington street); Roxbury street (Eliot square to Washington street); Shawmut avenue (Roxbury street to Ball street); Sterling street; Townsend street (Walnut avenue to Warren street); Vernon street (Cabot street to Washington street); Walnut avenue (Warren street to Seaver street); Warwick street; Williams street; Circuit street (Walnut avenue to Regent street); Rockland street (Walnut avenue to Warren street) — by contract	1,248 33
	<hr/> \$15,009 79 <hr/>

## CITY PROPER.

Labor	\$1,729 82
Water-carts	6,388 00
Cochituate Water-Works	1,917 30
Sundries	661 38
	<hr/>
	\$10,696 50
Swett street (bridge to Albany street); East Chester Park	2,209 99
Charles street (Cambridge street to Leverett street); Allen street (Charles street to Cambridge street); Cambridge street (North Russell street to Harbor); Poplar street; Lowell street (Brighton street to Causeway); Chambers street (Cambridge street to Green street); Derne street (Blossom street to Nashua street); Somerset street; Allston	

*Amount carried forward,*

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\$12,906 49

<i>Amount brought forward,</i>	\$12,906 49
street; Green street (Charles street to Bowdoin street); Bowdoin street (Allston street to Ashburton place); Bulfinch street (Howard street to Myrtle street); Atlantic avenue (Foster's wharf to Hanover street); Hanover street (Battery street to Eastern avenue); Parmenter street; Hancock street; Temple street; Bowdoin street; Staniford street . . . . .	2,400 29
Rochester street; Genesee street; Oneida street; Seneca street; Oswego street; Troy street; Waltham street (Washington street to Union park); Malden street (Albany street to Washington street); Broadway extension (bridge to Harrison avenue); East Dedham street (Washington street to Harrison avenue); Union park (Washington street to Harrison avenue); Berkeley street (Chandler street to St. James avenue)—by contract . . . . .	1,095 84
East Concord street (Harrison avenue to Albany street); West Chester park (Huntington avenue to Beacon street); Dartmouth street (Boylston street to railroad); Harrison avenue (Union Park street to Northampton street); Shawmut avenue (Dedham street to Arnold street); Washington street (Union Park street to Arnold street); Tremont street (Waltham street to Hammond street); Warren avenue (Dartmouth street to Columbus square); West Canton street; Wellington street; West Rutland square (Columbus avenue to railroad); Yarmouth street; Harwich street; Canton street (Albany street to Appleton street); West Brookline street (Tremont street to Albany street); Pembroke street (Tremont street to Shawmut avenue); Newton street (James street to Albany street); Concord street (Shawmut avenue to Harrison avenue); Worcester street (Shawmut avenue to Washington street); Worcester street (Columbus avenue to Tremont street); West Springfield street (Harrison avenue to Wash-	

*Amount carried forward,*

\$16,402 62

## STREET DEPARTMENT.

233

<i>Amount brought forward,</i>	\$16,402 62
ington street) ; West Springfield street (Tremont street to Columbus avenue) ; Northampton street (Albany street to railroad) ; Sawyer street ; Kendall street ; Buckingham street ; Pelham street ; Union park (Harrison avenue to Albany street) ; Columbus avenue (by contract) . . . . .	6,861 45
Albany street (Dover street to Beach street) ; Tyler street (by contract) . . . . .	273 00
	<hr/>
	23,537 07
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## STREET WATERING.

*Recapitulation.*

South Boston . . . . .	\$6,162 03
East Boston . . . . .	6,053 27
Charlestown . . . . .	6,984 23
Brighton . . . . .	13,895 37
West Roxbury . . . . .	17,118 01
Dorchester . . . . .	15,503 85
Roxbury . . . . .	15,009 79
City Proper . . . . .	23,537 07
	<hr/>
Total . . . . .	\$104,263 62
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## REMOVAL OF SNOW.

South Boston . . . . .	\$9,378 43
East Boston . . . . .	5,446 59
Charlestown . . . . .	6,121 26
Brighton . . . . .	4,986 63
West Roxbury . . . . .	7,093 74
Dorchester . . . . .	6,261 19
Roxbury . . . . .	10,035 33
City Proper . . . . .	53,087 69
	<hr/>
	\$102,410 86
	<hr/>

## EXPENDITURES UNDER SPECIAL APPROPRIATIONS.

## Total amount expended :

A street, Broadway to First street . . . . .	\$12,102 47
Albany street, Hampden to Eustis street . . . . .	21,273 39
Aldie street . . . . .	1,247 05
Allandale street . . . . .	4,729 41
Ashfield street . . . . .	1,000 00
Ashmont street . . . . .	6,079 00
Atlantic avenue . . . . .	3,590 12
Atlantic street . . . . .	1,543 02
Austin street . . . . .	8,840 43
Baker street . . . . .	2,866 00
Ballard street . . . . .	1,136 80
Batterymarch street . . . . .	3,336 00
Beacon street, West from Charles street, and Beacon street, W. Chester park to Arlington street . . . . .	44,903 25
Bedford street, Chauncy to Columbia street, and Kingston street, Sumner to Essex street . . . . .	
Board alley . . . . .	469 50
Boylston street, Church to Arlington . . . . .	64 50
Bristol street . . . . .	49 00
Brookline street, Shawmut avenue to Tremont street . . . . .	531 10
Bunker Hill street, Elm to Sackville street . . . . .	4,000 00
Bushnell street . . . . .	4,536 51
Buttonwood street . . . . .	2,013 30
Cabot street . . . . .	17,792 94
Caldwell street . . . . .	1,568 52
Call-street extension . . . . .	3,696 16
Cambridge street . . . . .	23,775 29
Camden street, Tremont street to R.R. . . . .	9,371 41
Canton street, Shawmut avenue to Tremont street, Centre street, Pynchon to New Heath street . . . . .	1,435 65
Chamber street, Charlestown . . . . .	4,639 77
Charles street . . . . .	634 35
Cleveland place . . . . .	16,578 66
Cliff street . . . . .	1,086 77
Columbus avenue . . . . .	2,484 33
Commonwealth avenue, West Chester park to Arlington street . . . . .	39,034 20
Concord square . . . . .	603 90
Cook street . . . . .	72 40
Cornell street . . . . .	700 00
Cornwall street . . . . .	4,300 00
Dartmouth street, Tremont street to Columbus avenue . . . . .	5,405 86
Dorchester street, Eighth street to Dorchester avenue . . . . .	1,056 40
Dorset street . . . . .	21,682 89
Dover street, Harrison avenue to Albany street . . . . .	5,000 00
Dudley street, Washington street to Norfolk House . . . . .	6,715 00
Dudley street, Washington to Hampden street . . . . .	6,258 74
Dupont street . . . . .	33,177 75
Eagle square . . . . .	645 21
	1,000 00

Amount carried forward,

\$347,530 25

<i>Amount brought forward.</i>	\$347,580 25
East First street, H to K street . . . . .	1,000 00
E street, Third to Bolton street, and } Third street, from E street, westerly }	3,470 47
East Concord street . . . . .	5,839 14
East Newton street . . . . .	3,554 36
Edgeworth street . . . . .	437 25
Ellwood street . . . . .	1,251 06
Emerson street . . . . .	5,000 00
Emerald street . . . . .	1,701 79
Exeter street . . . . .	316 50
Falcon street . . . . .	3,380 40
<sup>1</sup> Ferdinand-street bridge	5,908 77
First street, N.Y. & N.E. R.R. to F street . . . . .	37,781 16
Forbes street . . . . .	3,976 33
Fourth street, G to H street . . . . .	1,132 35
Fulda street . . . . .	324 75
Fulton street, Richmond to Lewis street . . . . .	7,230 42
Genesee street . . . . .	3,865 66
Geneva avenue . . . . .	6,249 79
Goldsmith street . . . . .	1,022 88
Granite avenue . . . . .	13,204 21
Green street, Charlestown . . . . .	460 46
Gustin street . . . . .	2,297 14
Hampshire street . . . . .	1,694 80
Harrison avenue, Canton to Sharon street . . . . .	4,000 00
Harrison avenue, E. Concord street to E. Chester park . . . . .	1,500 00
Harrison avenue, East Lenox to Northampton street . . . . .	3,000 00
Harvard street, Washington to Albany street . . . . .	77 78
Harvest street . . . . .	4,830 74
Haskins street . . . . .	2,809 79
Heath street . . . . .	2,768 33
Henley street . . . . .	3,847 52
High street . . . . .	2,125 13
Hill street . . . . .	4,138 07
Hobart street . . . . .	4,213 37
Hollis street . . . . .	3,190 59
Howland street . . . . .	5,827 78
Hudson street . . . . .	20,779 02
Humboldt avenue (grading) . . . . .	32,024 88
Hunneman street . . . . .	82 80
Island street . . . . .	25 60
Jeffries and Marginal streets . . . . .	5,516 61
K street, Fourth to Eighth street . . . . .	678 34
Lake street . . . . .	15,642 91
L street . . . . .	21,098 97
Lenox street . . . . .	8,572 10
Lincoln street, Charlestown . . . . .	2,300 00
Longwood avenue, Parker street to Huntington avenue . . . . .	22,592 12
Lucas street . . . . .	308 22
Lynde street . . . . .	1,603 79
Magazine street . . . . .	925 80
Magnolia street . . . . .	4,222 74

*Amount carried forward,*

\$637,332 94

<sup>1</sup> The amount of \$5,908.77 was paid out of the appropriation for Ferdinand-street bridge, for work done on approaches to said bridge.



<i>Amount brought forward,</i>	<b>\$637,332 94</b>
Malden street and Wareham street . . . . .	19,528 61
Matthews street and Leather square . . . . .	4,911 85
Maynard street . . . . .	2,444 93
Medford street . . . . .	21,505 36
Mercer street . . . . .	1,054 98
Minot street . . . . .	8,440 37
Monument court . . . . .	497 48
Monument street . . . . .	1,866 87
Moon street . . . . .	3,758 37
Moreland street . . . . .	2,040 21
Mount Vernon street . . . . .	2,693 10
Murdock street . . . . .	1,006 06
National street . . . . .	1,500 00
Neponset avenue . . . . .	17,161 26
Newman street . . . . .	1,341 14
Ninth street . . . . .	6,117 66
Oak street . . . . .	1,000 00
Ocean street . . . . .	10,100 00
Oneida street . . . . .	3,501 11
Oswego street . . . . .	3,668 67
Park street . . . . .	2,115 43
Parker street . . . . .	39,483 48
Parker street, Huntington avenue to Westland avenue . . . . .	420 00
Parkman street . . . . .	597 80
Paul street . . . . .	844 38
Pemberton square . . . . .	2,189 77
Preble street . . . . .	5,800 00
Prentiss street . . . . .	4,000 00
Prospect avenue . . . . .	533 00
Q street . . . . .	399 85
Resurfacing streets, Wards 17 and 18 . . . . .	5,777 31
Richmond street . . . . .	2,115 73
Rochester street . . . . .	4,537 24
Rogers street . . . . .	1,264 88
Rutherford avenue (macadamizing) . . . . .	100 00
Rutherford avenue (paving) . . . . .	7,841 50
Rutland square . . . . .	114 10
Salem street . . . . .	1,000 00
Savin Hill avenue . . . . .	3,826 68
Scotia, Cambria, and Bothnia streets . . . . .	10,369 66
Second street (grading, etc.) . . . . .	1,034 36
Second street, K to M . . . . .	1,422 21
Second street, E to Dorchester street . . . . .	21,243 99
Second street, easterly from Granite, and } Third street, A to Second . . . . .	17,055 74
Seneca street . . . . .	3,495 93
Seventh street, D to B . . . . .	9,244 36
Shirley street . . . . .	4,042 66
Short street, Charlestown . . . . .	700 00
Short street, West Roxbury . . . . .	96 60
Silver street, A to D . . . . .	1,090 66
Sixth street, B to C . . . . .	3,200 00
Sixth street, H to I . . . . .	1,729 61
Smith-street extension . . . . .	639 60
Soley street . . . . .	810 35
Story street . . . . .	1,946 78

*Amount carried forward,*

**\$912,554 63**

<i>Amount brought forward,</i>	\$912,554 68
Stoughton street . . . . .	4,274 24
Sun-Court street . . . . .	1,388 32
Sycamore and Ridge streets . . . . .	3,700 00
Symmes street . . . . .	1,390 50
Terrace place, East Boston . . . . .	1,684 61
Terrace street . . . . .	25,218 34
Texas street . . . . .	2,000 00
Tremont street, from Roxbury Crossing . . . . .	10 50
Tremont street, Scollay square to Boylston . . . . .	53,725 34
Troy street . . . . .	8,529 37
Village street . . . . .	2,200 00
Waltham street . . . . .	1,525 97
Ward street . . . . .	797 72
Warren avenue . . . . .	254 40
Warren street . . . . .	17,081 75
Warrenton street . . . . .	6,805 68
Washburn street . . . . .	4,088 81
Washington street, Charlestown . . . . .	2,000 00
Washington street, Dorchester . . . . .	500 00
Washington, South and Centre streets . . . . .	21,334 98
Water street, Charlestown . . . . .	540 70
Watson street . . . . .	1,498 65
Waumbeck street . . . . .	5,919 21
Well street . . . . .	2,112 75
Wendell street . . . . .	2,520 06
West Chester park and square . . . . .	3,161 62
West Dedham street . . . . .	4,500 00
West Newton street, Tremont street to Columbus avenue . . . . .	12,000 00
West Newton street, Tremont street to Shawmut avenue . . . . .	6,673 30
West Second street . . . . .	135 49
Wharf street . . . . .	1,861 03
<b>Total . . . . .</b>	<b>\$1,111,987 97</b>
Less amount paid out of Appropriation for Paving . . . . .	97,663 71
<b>Total . . . . .</b>	<b><u>\$1,014,324 26</u></b>

**DETAILED SCHEDULE OF EXPENDITURES MADE UNDER  
SPECIAL APPROPRIATIONS, TOGETHER WITH STATE-  
MENTS OF THE AMOUNT OF WORK DONE THE COST  
OF WHICH EXCEEDED \$3,000.**

**A street, Broadway to First street, repaving.**

Labor, including engineering and inspection . . . . .	\$689 67	
Teaming . . . . .	153 75	
64,806 granite paving-blocks . . . . .	4,743 20	
Wharfage on paving-blocks . . . . .	240 80	
111½ feet of edgestone . . . . .	62 35	
29,450 paving-brick . . . . .	338 67	
823 lin. feet of flagging . . . . .	883 05	
Sundries . . . . .	231 00	
		<hr/>
		\$7,342 49

Amount paid to Collins & Ham, for paving, as  
per contract:

2,542 sq. yds. block paving laid, at \$1.05 . . . . .	\$2,669 10	
1,362 lin. feet edgestone set, at 55 cts. . . . .	749 10	
1,124 sq. yds. brick paving laid, at 91 cts. . . . .	1,022 84	
175 sq. yds. cross-walks laid, at \$1.15 . . . . .	201 25	
6 days' labor stone-cutting, at \$4.60 . . . . .	27 60	
		<hr/>
		4,669 89

Amount paid for the construction 2 new catch-basins and 2 new manholes by the Sewer Division . . . . .		366 59
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**\$12,378 97**

Amount charged to L street, filling . . . . .	\$251 50	
Amount retained from Collins & Ham . . . . .	25 00	
		<hr/>
		276 50

**\$12,102 47**

Amount of special appropriation . . . . .		12,000 00
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Amount paid out of Paving Division appropriation . . . . .		<u>\$102 47</u>
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**Albany street, Hampden to Eustis street, paving.**

Labor . . . . .	\$3,881 70	
Teaming . . . . .	2,938 50	
145,979 granite paving-blocks . . . . .	10,569 64	
176 ft. of edgestone, 5 corners . . . . .	117 31	
1,444.73 ft. flagging . . . . .	1,516 97	
Hill gravel . . . . .	1,534 40	
Beach gravel . . . . .	383 40	
11,200 paving-brick . . . . .	134 40	
Sand . . . . .	31 50	
		<hr/>
		\$21,107 82

Amount paid for building 1 new catch-basin by the Sewer Division . . . . .		165 57
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**\$21,273 39**

Amount of special appropriation . . . . .		21,107 49
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Amount paid out of Paving Division appropriation . . . . .		<u>\$165 90</u>
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2,604 ft. of edgestone resct.  
5,320 sq. yds. block paving laid.  
1,117 sq. yds. brick paving laid.  
150 cu. yds. earth-cutting.

**Aldie street, gravelled.**

Labor . . . . .	\$201 70	
Teaming . . . . .	190 50	
Gravel . . . . .	854 85	
		<u>\$1,247 05</u>
Amount of special appropriation . . . . .		1,000 00
Amount paid out of Paving Division appropriation . . . . .		<u>\$247 05</u>

**Allandale street, grading.**

Labor . . . . .	\$2,129 80	
Teaming . . . . .	1,851 00	
		<u>\$3,980 80</u>
Amount paid for work done by Sewer Division: Building culvert (80 ft. stone pipe culvert) and 159 ft. 18-in. pipe,		748 61
		<u>\$4,729 41</u>

**Ashfield street, grading.**

Labor . . . . .	\$691 00	
Teaming . . . . .	309 00	
		<u>\$1,000 00</u>

**Ashmont street, Dorchester avenue to Washington street,  
regulating and macadamizing.**

Labor . . . . .	\$2,376 22	
Teaming . . . . .	216 00	
Edgestone, 1,810 ft. and 5 corners . . . . .	1,338 80	
Gravel . . . . .	543 75	
Stone . . . . .	890 14	
2,471 granite paving-blocks . . . . .	177 54	
1,810 ft. edgestone set, 8 cts. . . . .	\$144 80	
727 sq. yds. block paving laid, 25 cts. . . . .	181 75	
		<u>326 55</u>
Roller . . . . .		210 00
		<u>\$6,079 00</u>
Amount of special appropriation . . . . .		5,400 00
Amount paid from Paving Division appropriation . . . . .		<u>\$679 00</u>
2,500 sq. yds. 6-in. macadam.		
1,300 sq. yds. gravel sidewalk.		

**Atlantic avenue, paving.**

Labor . . . . .	\$685 14	
Teaming . . . . .	759 00	
323 ft. of flagging . . . . .	372 45	
Beach gravel . . . . .	716 11	
400.4 lin. ft. edgestone set, at 8 cts. . . . .	\$32 03	
3,797.6 sq. yds. block paving laid, at 25 cts. . . . .	949 40	
245.8 sq. yds. brick paving laid, at 18 cts. . . . .	44 24	
		<u>1,025 67</u>
1,000 paving-brick . . . . .		12 50
Beach sand . . . . .		18 00
Crossing-blocks . . . . .		1 25
		<u>\$3,590 12</u>
Amount of special appropriation . . . . .		3,492 76
Amount paid out of Paving Division appropriation . . . . .		<u>\$97 36</u>

**Atlantic street, regulating and macadamizing.**

814 sq. yds. 3-in. macadam.

Labor . . . . .	\$557 32
Teaming . . . . .	100 50
Stone . . . . .	162 80
Roller . . . . .	70 00
Gravel . . . . .	204 62
Sand . . . . .	64 75
7,000 paving-brick . . . . .	84 00
676 lin. ft. edgestone set, at 8 cts. . . . .	\$54 08
16.3 sq. yds. block paving laid, at 25 cts. . . . .	4 08
308.4 sq. yds. round paving laid, at 25 cts. . . . .	77 10
558.1 sq. yds. brick paving laid, at 18 cts. . . . .	100 46

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235 72

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\$1,479 71

Amount paid for work done by Sewer Division: Building  
1 new manhole . . . . .

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63 31

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\$1,543 02

Amount of special appropriation . . . . .

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1,543 02

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**Austin street, paving.**

Labor, including engineering and inspection . . . . .	\$605 91
Teaming . . . . .	39 00
221½ feet of edgestone and 2 corners . . . . .	179 77
115½ feet of flagging . . . . .	96 81
11,000 paving-brick . . . . .	126 50
36,175 granite paving-blocks . . . . .	2,740 89
400 sq. yds. asphalt, including bed . . . . .	2,026 05
Sundries . . . . .	73 60

Amount paid for paving, as per contract with John  
Turner & Co.:

1,318 sq. yds. block paving, at \$1.30 . . . . .	\$1,713 40
1,115 lin. ft. edgestone set, at 35 cents . . . . .	390 25
700 sq. yds. block paving, at \$1 . . . . .	700 00
76 sq. yds. cross-walks laid, at \$1.50 . . . . .	114 00
7½ days' labor stone-cutting, at \$4.60 . . . . .	34 25

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2,951 90

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\$8,840 43

Amount of special appropriation . . . . .

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8,700 00

Amount paid out of Paving Division appropriation . . . . .

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\$140 43

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**Baker street, widening and grading.**

Labor . . . . .	\$892 20
Teaming . . . . .	1,203 00
Gravel . . . . .	725 20
Sundries . . . . .	45 60

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\$2,866 00

Amount of special appropriation . . . . .

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2,500 00

Amount paid out of Paving Division appropriation . . . . .

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\$366 00

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**Ballard street, grading.**

Labor . . . . .	\$405 60	
Teaming . . . . .	252 00	
Gravel . . . . .	456 40	
Crushed stone . . . . .	22 80	
		\$1,136 80
Amount of special appropriation . . . . .		1,000 00
Amount paid out of Paving Division appropriation . . . . .		<u>\$136 80</u>

**Batterymarch street, paving.**

Labor, including engineering and inspection . . . . .	\$506 91	
Teaming . . . . .	466 50	
Gravel . . . . .	228 80	
114.6 feet of flagging . . . . .	131 79	
Sundries . . . . .	32 04	
24,232 granite paving-blocks . . . . .	1,672 00	
281 lin. feet edgestone set, at 8 cents . . . . .	\$22 48	
1,003 sq. yds. block paving laid, at 25 cents . . . . .	250 75	
137.4 sq. yds. brick paving laid, at 18 cents . . . . .	24 73	
		297 96
		\$3,836 00
Amount of special appropriation . . . . .		3,200 00
Amount paid out of Paving Division appropriation . . . . .		<u>\$136 00</u>

**Beacon street, west from Charles street, and between W. Chester park and Arlington street, asphaltting and macadamizing.**

9,000 yds. Telford macadam.		
Labor, including engineering and inspection . . . . .	\$12,044 61	
Teaming . . . . .	2,973 00	
Hill gravel . . . . .	225 60	
Sand . . . . .	210 80	
Beach gravel . . . . .	107 21	
Crushed stone . . . . .	7,187 24	
1073 1/2 feet of edgestone . . . . .	601 11	
29,247 paving-brick . . . . .	442 29	
10,501 granite paving-blocks . . . . .	909 62	
Rolling . . . . .	336 53	
Sundries . . . . .	476 78	
Amount paid for paving, as per contract with Barber Asphalt Paving Co.:		
1154 sq. yds. gutters paved on a concrete foundation, at \$2.00 . . . . .	\$231 00	
3,633 sq. yds. paving with Trinidad asphalt on concrete foundation, at \$3.60 . . . . .	13,078 80	
2374 sq. yds. cross-walks laid, at \$1.05 . . . . .	249 38	
		13,559 18
Amount paid for paving to J. Doherty & Co.:		
468 lin. feet edgestones set, at 8 cts. . . . .	\$37 44	
2,023 sq. yds. block paving laid, at 25 cts. . . . .	50 58	
5,59.5 sq. yds. brick paving laid, at 18 cts. . . . .	100 71	
137 1/2 lin. feet edgestone set, at 15 cts. . . . .	20 60	
1,045 sq. yds. block paving laid, at 40 cts. . . . .	418 00	
38,007 lin. feet edgestone set, at 18 cts. . . . .	684 13	

*Amounts carried forward,***\$1,311 46** **\$39,073 97**

<i>Amounts brought forward,</i>	\$1,311 46	\$39,073 97
1,655.8 sq. yds. block paving laid, at 35 cts. . . . .	579 54	
5,280.3 sq. yds. brick paving laid, at 28 cts. . . . .	1,478 48	
306 sq. yds. patch paving, at 35 cts. . . . .	107 10	
596½ sq. yds. block paving laid (tar joints), at \$1.37 . . . . .	817 55	
104½ sq. yds. block paving laid (grave joint), at 65 cts. . . . .	67 92	
	<hr/>	4,362 05
<i>Amount paid for paving to E. McLaughlin:</i>		
120.3 lin. feet edgestone set, at 8 cts. . . . .	\$9 62	
51.2 sq. yds. round paving laid, at 25 cts. . . . .	12 80	
105.5 sq. yds. brick paving laid, at 18 cts. . . . .	18 99	
	<hr/>	41 41
<i>Amount paid for paving to H. Gore &amp; Co.:</i>		
663.5 lin. feet edgestone set, at 15 cts. . . . .	\$99 53	
295 sq. yds. brick paving laid, at 43 cts. . . . .	126 85	
Teaming . . . . .	96 00	
Sand . . . . .	32 00	
Gravel . . . . .	36 00	
15 days' labor stone-cutting . . . . .	67 50	
Sundries . . . . .	37 25	
	<hr/>	495 13
		<hr/>
		\$43,972 56
<i>Amount paid for work done by Sewer Division: Repairing 7 catch-basins and 2 manholes . . . . .</i>		930 69
		<hr/>
		\$14,903 25
<i>Amount paid out of Paving Division appropriation . . . . .</i>		4,727 87
		<hr/>
		\$40,175 38
<i>Amount of special appropriation . . . . .</i>		41,350 00
		<hr/>
<i>Balance unexpended . . . . .</i>		\$1,174 62
		<hr/>
<b>Bedford street, Chauncy to Columbia street, and Kingston street, Summer street to Essex street, paving.</b>		
Labor, including inspection and engineering . . . . .	\$1,011 92	
63,322 granite paving-blocks . . . . .	4,742 39	
Wharfage on paving-blocks . . . . .	214 19	
9,056 paving-brick . . . . .	114 21	
674.7 ft. flagging . . . . .	804 64	
333.7 ft. of edgestone . . . . .	187 36	
Sundries . . . . .	65 94	
<i>Amount paid for paving, as per contract with H. Gore &amp; Co.:</i>		
2,186½ sq. yds. block paving laid, at \$2.66 . . . . .	\$5,816 53	
629 lin. ft. edgestone set, at 30 cts. . . . .	188 70	
462½ sq. yds. brick paving laid, at 91 cts. . . . .	420 88	
13½ sq. yds. cross-walks laid, at \$2.34 . . . . .	314 73	
Extra work, as ordered . . . . .	231 21	
	<hr/>	6,972 05
		<hr/>
		\$14,112 70
<i>Amount paid for work done by Sewer Division: Building 3 new catch-basins . . . . .</i>		390 50
		<hr/>
<i>Amount carried forward,</i>		\$14,503 20

*Amount brought forward,* \$14,503 20  
 Amount of special appropriation for Bedford street . 4,100 00

\$10,403 20  
 Amount of special appropriation for Kingston street . 7,715 00

Amount paid out of Paving Division appropriation . \$2,688 20

**Board alley, paving.**

Labor . . . . . \$135 95  
 Teaming . . . . . 42 00  
 Beach gravel . . . . . 17 04

Amount paid for paving by H. Gore & Co.:

20.7 sq. yds. brick paving laid, at 18 cts. . . . . \$3 73  
 2.3 lin. ft. edgestone set, at 8 cts. . . . . 18  
 98.4 sq. yds. brick paving on edge, grouted  
 with cement, at \$2.75 . . . . . 270 60

274 51

\$469 50

**Boylston street, Church street to Arlington street, paving.**

Labor . . . . . \$64 50

**Bristol street.**

Labor . . . . . \$49 00

**Brookline street, Washington to Tremont, resurfacing.**

Labor . . . . . \$153 60  
 Teaming . . . . . 195 00  
 Stone . . . . . 107 50  
 Roller . . . . . 75 00

\$531 10

**Bunker Hill street, Elm street to Sackville street, paving.**

Labor . . . . . \$826 94  
 Teaming . . . . . 268 50  
 Hill gravel . . . . . 87 89  
 Beach gravel . . . . . 64 61  
 35,518 granite paving-blocks . . . . . 2,717 31  
 2,500 paving-brick . . . . . 28 75  
 Sundries . . . . . 6 00

\$4,000 00

193.3 ft. of edgestone reset.

1,271 sq. yds. block paving.

130.3 sq. yds. brick paving.

**Bushnell street, regulating and macadamizing.**

1,550 sq. yds. 6-in. macadam.

900 sq. yds. gravel sidewalk.

Labor . . . . . \$601 88  
 Teaming . . . . . 153 00  
 Gravel . . . . . 332 25  
 Sand . . . . . 32 40

*Amount carried forward,*

\$1,119 53



<i>Amount brought forward,</i>		\$1,119 53
Stone . . . . .		626 89
23,643 granite paving-blocks . . . . .		656 08
Edgestone — 1,494 ft. and carting . . . . .		1,202 94
6 large and 2 small corners . . . . .		41 10
Roller . . . . .		63 00
1,839 lin. ft. edgestone set, at 8 cts . . . . .	\$147 12	
642 sq. yds. block paving laid, at 25 cts. . . . .	160 50	
191 sq. yds. brick paving laid, at 18 cts. . . . .	34 38	
		<hr/> 342 00
Amount paid for work done by Sewer Division: Building		
4 new catch-basins and repairing 4 manholes . . . . .		484 97
		<hr/> \$4,536 51
Amount of special appropriation . . . . .		2,917 00
		<hr/>
Amount paid out of Paving Division appropriation . . . . .		\$1,619 51
		<hr/>
<b>Buttonwood street, Mt. Vernon street to Locust street, grading.</b>		
Labor . . . . .		\$268 50
Filling 1,992 cu. yds., at 65 cts. . . . .		1,294 80
Grade damages . . . . .		450 00
		<hr/> \$2,013 30
		<hr/>
<b>Cabot street, paving.</b>		
Labor, including engineering and inspection . . . . .		\$472 01
Teaming . . . . .		18 00
178.3 ft. of edgestone and 5 corners . . . . .		139 43
529.8 ft. of flagging . . . . .		573 19
50,000 paving-brick . . . . .		580 00
Sundries . . . . .		31 70
Amount paid to H. Gore & Co. for paving:		
74 lin. ft. of edgestone set, at 8 cts. . . . .	\$5 92	
23 cu. yds. block paving laid, at 25 cts. . . . .	5 75	
37.6 cu. yds. block paving laid, at \$1.05 . . . . .	39 48	
		<hr/> 51 15
Amount paid for asphaltting, as per contract with		
Barber Asphalt Co.:		
3,567 sq. yds. asphalt paving, at \$3.60 . . . . .	\$12,841 20	
2,385 lin. ft. edgestone set, at 40 cts. . . . .	954 00	
1,724 sq. yds. brick paving, at 85 cts. . . . .	1,465 40	
227 yds. cross-walks laid, at \$1.05 . . . . .	238 35	
36 days' labor stone-cutting . . . . .	176 94	
		<hr/> 15,675 89
		<hr/>
Amount paid for work done by Sewer Division: Building		
1 new catch-basin and repairing 10 catch-basins . . . . .		251 57
		<hr/> \$17,792 94
Amount of special appropriation . . . . .		16,000 00
		<hr/>
Amount paid out of Paving Division appropriation . . . . .		\$1,792 94
		<hr/>
<b>Caldwell street, macadamizing.</b>		
Labor . . . . .		\$196 60
Teaming . . . . .		232 50
		<hr/>
<i>Amount carried forward,</i>		\$429 10

## STREET DEPARTMENT.

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<i>Amount brought forward,</i>	\$429 10
Crushed stone . . . . .	424 09
Gravel . . . . .	223 65
618.6 feet of edgestone and two corners . . . . .	440 22
643.25 lin. feet edgestone set, at 8 cts. . . . .	51 46
	<hr/>
	\$1,568 52

**Cambridge street, Wards 9 and 19, paving and regulating.**

935 sq. yds. 6-in. macadam.	
Labor . . . . .	\$3,443 27
Teaming . . . . .	2,379 00
Beach gravel . . . . .	1,039 50
Beach sand . . . . .	70 20
Hill sand . . . . .	57 00
845½ feet of edgestone . . . . .	481 67
45,140 paving-brick . . . . .	551 90
240 feet flagging . . . . .	263 20
115,730 granite paving-blocks . . . . .	8,514 51
Wharfage on paving-blocks . . . . .	300 00
2,744 sq. yds. paving removed . . . . .	1,344 56
Sundries . . . . .	80 36
<i>Amount paid to H. Gore &amp; Co. for paving:</i>	
2,900.8 lin. feet of edgestone set, at 8 cts. . . . .	\$232 06
4,216.5 sq. yds. block paving laid (tar joints), at 97 cts. . . . .	4,083 22
2,299 sq. yds. brick paving laid, at 18 cts. . . . .	413 82
	<hr/>
	4,729 10

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\$23,254 27

Amount paid for work done by Sewer Division: 22 catch- basins repaired . . . . .	521 02
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\$23,775 29**Call-street extension, grading.**

1,250 sq. yds. 6-in. macadam.	
Labor . . . . .	\$1,468 99
Filling . . . . .	675 25
Crushed stone . . . . .	503 21
	<hr/>
	\$2,647 45

Amount paid for work done by Sewer Division: Building 56,948 feet 15 and 18 in. sewer . . . . .	1,048 71
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\$3,696 16

Balance from Street Commissioners . . . . .	3,096 45
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Amount paid out of Paving Division appropriation . . . . .	\$599 71
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**Camden street, Tremont street to O.C. R.R., macadamizing.**

3,000 sq. yds. Telford macadam.:	
Labor . . . . .	\$2,167 53
Teaming . . . . .	1,063 50
Crushed stone . . . . .	2,717 22
Hill gravel . . . . .	896 00
Beach gravel . . . . .	51 83

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\$6,896 08

<i>Amount brought forward,</i>	\$6,896 08
111.8 feet of flagging . . . . .	117 39
1,335 feet of edgestone (new) . . . . .	934 50
16 corners . . . . .	60 00
Steam-roller . . . . .	300 00
Sundries . . . . .	22 50
<b>Amount paid to J. Doherty &amp; Co. for paving:</b>	
1,568 lin. feet of edgestone set, at 8 cts. . . . .	\$125 44
701 sq. yds. block paving laid, at 25 cts. . . . .	175 25
83.4 sq. yds. brick paving laid, at 18 cts. . . . .	15 01
848.8 lin. feet of edgestone set, at 18 cts. . . . .	152 78
605.1 sq. yds. block paving laid, at 35 cts. . . . .	211 79
	<hr/> 680 27
	<hr/> \$9,010 74
<b>Amount paid for work done by Sewer Division: Building</b>	
2 new catch-basins . . . . .	360 67
	<hr/> \$9,371 41
<b>Amount of special appropriation . . . . .</b>	<b>7,500 00</b>
<b>Amount paid out of Paving Division appropriation . . . . .</b>	<b><u>\$1,871 41</u></b>
<b>Canton street, Shawmut avenue to Tremont street, macadamizing.</b>	
1,090 sq. yds. 6-in. macadam.	
Labor . . . . .	\$875 00
Stone . . . . .	435 65
Steam-roller . . . . .	125 00
	<hr/> \$1,435 65
<b>Amount of special appropriation . . . . .</b>	<b>1,000 00</b>
<b>Amount paid out of Paving Division appropriation . . . . .</b>	<b><u>\$435 65</u></b>
<b>Centre street, Pyncheon to New Heath street, macadamizing.</b>	
2,040 sq. yds. 6-in. macadam.	
Labor . . . . .	\$359 54
Teaming . . . . .	217 50
Gravel . . . . .	730 80
Sand . . . . .	136 00
Crushed stone . . . . .	809 19
2,000 granite paving-blocks . . . . .	94 00
27,950 paving-brick . . . . .	335 40
1,190 feet of edgestone . . . . .	868 70
5 corners . . . . .	28 75
117.8 feet of flagging . . . . .	123 69
<b>Amount paid for paving to A. A. Libby &amp; Co.:</b>	
1,187.8 lin. feet of edgestone set, at 20 cts. . . . .	\$237 56
917.5 sq. yds. of block paving laid, at 50 cts. . . . .	458 75
660.6 sq. yds. of brick paving laid, at 35 cts. . . . .	231 39
	<hr/> 927 70
	<hr/> \$4,631 27
<b>Amount paid for work done by Sewer Division: Repairing</b>	
2 manholes . . . . .	8 50
	<hr/> \$4,639 77
<b>Amount of special appropriation . . . . .</b>	<b>3000 00</b>
<b>Amount paid out of Paving Division appropriation . . . . .</b>	<b><u>\$1,639 77</u></b>

**Chambers street, Charlestown, resurfacing.**

700 sq. yds. 3-in. macadam.

Labor . . . . .	\$182 03
Teaming . . . . .	120 00
Gravel . . . . .	40 00
Sand . . . . .	13 09
Crushed stone . . . . .	130 96
4,500 paving-brick . . . . .	51 75

Amount paid for paving to P. Brennan &amp; Co. :

390.1 lin. feet of edgestone set, at 8 cts. . . . .	\$31 21	
143.4 sq. yds. block paving laid, at 25 cts. . . . .	35 85	
163.7 sq. yds. brick paving laid, at 18 cts. . . . .	29 46	
		96 52
		<u>\$634 35</u>

**Charles street, paving.**

Labor . . . . .	\$2,611 52
Teaming . . . . .	2,455 50
Beach gravel . . . . .	651 84
Beach sand . . . . .	91 20
Hill sand . . . . .	137 75
71 feet of edgestone . . . . .	39 76
125 feet of flagging . . . . .	143 75
35,000 paving-brick . . . . .	420 00
Wharfage . . . . .	200 00
Sundries . . . . .	24 58

Amount paid for paving to Payson &amp; Co. :

1,354 lin. feet of edgestone set, at 15 cts. . . . .	\$203 10	
1,946 sq. yds. brick paving laid, at 28 cts. . . . .	544 88	
3,640 sq. yds. block paving laid (tar joints), at \$1.12 . . . . .	4,076 80	
83 sq. yds. block paving laid, at 25 cts. . . . .	21 25	
Labor, trimming stone . . . . .	62 00	4,908 03

Amount paid for paving to James Grant &amp; Co. :

3,080 sq. yds. block paving laid (tar joints), at \$1.12 . . . . .	\$3,449 60	
1,370 lin. feet edgestone set, at 15 cts. . . . .	205 50	
2,472 sq. yds. brick paving laid, at 28 cts. . . . .	692 16	
59.6 lin. feet edgestone set, at 8 cts. . . . .	4 77	
678 sq. yds. block paving laid, at 25 cts. . . . .	169 50	
33 sq. yds. brick paving laid, at 18 cts. . . . .	5 94	
Labor, trimming stone . . . . .	69 00	4,596 47

\$16,280 40Amount paid for work done by Sewer-Division: Building  
2 new catch-basins and repairing 1 catch-basin . . . . .

298 26

\$16,578 66

**Cleveland place, asphaltting.**

Labor . . . . .	\$110 25
Teaming . . . . .	54 00
Amount paid for paving to H. Gore & Co.:	
11.7 lin. feet of edgestone set, at 18 cts. . . . .	\$2 11
4.6 sq. yds. block paving laid, at 35 cts. . . . .	1 61
344.8 sq. yds. asphalt brick paving laid, at \$2.25 . . . . .	775 80
	<hr/>
	779 52
	<hr/>
	\$943 77

Amount paid for work done by Sewer Division: Building	
28.12 ft. 12-in. pipe sewer . . . . .	143 00
	<hr/>

Amount of special appropriation . . . . .	\$1,086 77
	<hr/>
	1,000 00
	<hr/>

Amount paid out of Paving Division appropriation . . . . .	86 77
	<hr/>

**Cliff street, resurfacing.**

1,500 sq. yds. 6-in. macadam.:	
Labor . . . . .	\$938 00
Teaming . . . . .	229 50
Roller . . . . .	140 00
Gravel . . . . .	277 20
Sand . . . . .	38 40
Crushed stone . . . . .	574 26
215 feet edgestone . . . . .	150 50
Amount paid for paving to A. A. Libby & Co.	
231.8 lin. feet of edgestone set, at 8 cts. . . . .	\$46 36
114.9 sq. yds. block paving laid, at 50 cts. . . . .	57 45
93.3 sq. yds. brick paving laid, at 35 cts. . . . .	32 66
	<hr/>
	136 47
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Amount of special appropriation . . . . .	\$2,484 33
	<hr/>
	2,169 72
	<hr/>

Amount paid out of Paving Division appropriation . . . . .	\$314 61
	<hr/>

**Columbus avenue, resurfacing.**

Labor . . . . .	\$3,088 63
Teaming . . . . .	592 50
Gravel . . . . .	71 00
50,121 granite paving-blocks . . . . .	3,697 46
28.5 feet of flagging . . . . .	34 20
Sundries . . . . .	91 05

Amount paid for asphaltting, as per contract with Barber

Asphalt Paving Co.:

10,468 sq. yds. surface relaid, at \$2.25 . . . . .	\$23,553 00
1,088½ sq. yds. concrete surface relaid, at \$3.75, . . . . .	4,081 25
475.7 cu. yds. concrete base relaid, at \$8.50 . . . . .	4,038 71
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	\$31,672 96
Deduct 30 loads old asphalt, at \$2.00 . . . . .	60 00
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	31,612 96
	<hr/>

	\$39,187 80
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Amount paid for work done by Sewer Division: Repairing	
8 catch-basins . . . . .	33 17
	<hr/>

Amount carried forward,

\$39,220 97

## STREET DEPARTMENT.

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*Amount brought forward,* \$39,220 97  
 Amount of special appropriation . . . . . 39,000 00

Amount paid out of appropriation for resurfacing streets . 220 97  
 186 77

Amount paid out of Paving Division appropriation . 34 20

**Commonwealth avenue, West Chester park to Arlington street,  
 resurfacing.**

500 sq. yds. 6-in. macadam.

Labor . . . . . \$156 00  
 Teaming . . . . . 140 80  
 Roller . . . . . 106 00  
 Stone . . . . . 201 10

\$603 90

**Concord square, resurfacing.**

Labor . . . . . \$52 90  
 Teaming . . . . . 19 50

\$72 40

**Cook street, macadamizing, 600 sq. yds. 3-in. macadam.**

Labor . . . . . \$276 55  
 Teaming . . . . . 192 00  
 Roller . . . . . 42 00  
 Gravel . . . . . 54 96  
 Crushed stone . . . . . 134 49

\$700 00

**Cornell street, grading and gravelling.**

Labor . . . . . \$2,046 18  
 Teaming . . . . . 876 00  
 Gravel . . . . . 783 30  
 Sundries . . . . . 87 71

\$3,793 19

Amount paid for work done by Sewer Division: Building  
 41 feet stone culvert . . . . . 506 81

\$4,300 00

**Cornwall street, grading and gravelling and erecting bridge  
 across Stony Brook.**

Labor . . . . . \$232 10  
 Teaming . . . . . 147 00  
 Gravel . . . . . 250 60  
 Filling . . . . . 628 00  
 Grade damages . . . . . 2,600 00

\$3,857 70

Amount paid for work done by Bridge Division . . . 1,548 16

\$5,405 86

**Dartmouth street, Tremont street to Columbus avenue, macadamizing.**

1,000 sq. yds. 6-in. macadam.

Labor . . . . .	\$383 60
Teaming . . . . .	184 50
Stone . . . . .	488 30

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\$1,056 40

Amount of special appropriation . . . . .568 10

Amount paid out of Paving Division appropriation . . .

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\$148 30**Dorchester street, Eighth street to Dorchester avenue, paving.**

Labor, including inspection and engineering . . .	\$1,461 94
145.8 ft. edgestone and 4 corners . . . . .	102 62
492 ft. flagging . . . . .	522 75
6,000 paving-bricks . . . . .	547 50
118,394 granite paving-blocks . . . . .	8,619 71
Wharfage on paving-blocks . . . . .	481 65
Sundries . . . . .	75 26

Amount paid for paving, as per contract with Collins &amp; Ham:

4,752 sq. yds. block paving laid, at \$1.35 . . .	\$6,415 20
3,157 lin. feet edgestone set, at 24 cts. . . . .	757 68
2,639 sq. yds. brick paving laid, at 83 cts. . .	2,190 37
207 sq. yds. cross-walks laid, at \$1.35 . . .	279 45
Extra work, as ordered . . . . .	294 63

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9,937 35

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\$21,748 76Amount paid for work done by Sewer Division: Building  
5 new catch-basins . . . . .837 50

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\$22,586 26

Amount paid out of Paving Division appropriation . . .	\$68 98
Amount charged to Washburn street, filling . .	374 25
Amount charged to Preble street, filling . . .	32 25

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475 48

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\$22,110 78

Amount of special appropriation . . . . .22,000 00

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\$110 78Amount retained from Collins & Ham, \$496.87; of this  
amount \$110.78 will be paid from Paving Division.**Dorset street, Dorchester avenue to Boston, regulating and macadamizing.**

2,100 sq. yds. 6-in. macadam.

Labor . . . . .	\$1,769 35
Teaming . . . . .	420 00
Stone . . . . .	820 80
Roller . . . . .	112 00
Gravel . . . . .	112 67
Sand . . . . .	30 63
Edgestone, 1,618 feet . . . . .	1,127 07
Sundries . . . . .	87 00

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Amount carried forward.

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\$1,429 52

<i>Amount brought forward,</i>		\$4,429 52
1,620 ft. edgestone set, at 19 cts.	\$315 90	
559 sq. yds. gutters paved, at 32 cts.	181 68	
405 sq. yds. brick paving laid, at 18 cts.	72 90	
		570 48
		<u>\$5,000 00</u>
Amount for special appropriation		<u>5,000 00</u>

**Dover street, Harrison avenue to Albany street, regulating and paving.**

1,017 lin. ft. edgestone reset.		
1,816 sq. yds. block stone paving.		
828 sq. yds. brick sidewalk relaid.		
Labor	\$2,003 01	
Teaming	538 50	
56,175 granite paving-blocks	3,972 09	
Gravel	125 59	
Sundries	50 05	
Work done by Sewer Division : Repairing 2 catch-basins	25 76	
		<u>\$6,715 00</u>
Amount of special appropriation		<u>6,715 00</u>

**Dudley street, Washington street to Norfolk House, regulating and macadamizing.**

2,700 sq. yds. 6-in. macadam.		
Labor	\$1,105 50	
Teaming	867 00	
Crushed stone	1,175 26	
Gravel	981 40	
Sand	72 00	
Paving-brick, 18,000	212 00	
Edgestone, 302 ft.	180 78	
Sundries	31 50	
Amount paid for work done by Sewer Division : Repairing 9 manholes	45 41	
Amount paid to Payson & Co., for paving :		
2,140.2 lin. ft. edgestones set, at 18 cts.	\$385 24	
1,185.6 sq. yds. block paving laid, at 35 cts.	414 96	
1,512.9 sq. yds. brick paving laid, at 28 cts.	423 61	
25.7 sq. yds. concrete paving laid, at 75 cts.	19 27	
58 sq. yds. brick paving laid, at 46 cts.	26 68	
781.7 lin. ft. edgestone set, at 8 cts.	62 54	
620 sq. yds. block paving laid, at 25 cts.	155 00	
439.7 sq. yds. brick paving laid, at 18 cts.	79 14	
59.6 sq. yds. brick paving laid, at 36 cts.	21 45	
		1,587 89
		<u>\$6,258 74</u>
Amount of special appropriation		<u>5,000 00</u>
Amount paid out of Paving Department appropriation		<u>\$1,258 74</u>



**Dudley street, Washington to Vine street, etc., paving.**

Labor, including inspection and engineering . . . . .	\$2,059 94
1,815.8 ft. of flagging . . . . .	1,921 70
266,019 granite paving-blocks . . . . .	13,662 06
329.2 ft. of edgestone and 2 corners . . . . .	191 84
65,533 paving-bricks . . . . .	776 00
Sand . . . . .	5 00
Gravel . . . . .	15 00
Sundries . . . . .	121 10

Amount paid for paving, as per contract with James Grant & Co.:

9,106 sq. yds. block paving laid, at 95 cts. . . . .	\$8,650 70
5,600 lin. ft. of edgestone set, at 28 cts. . . . .	1,568 00
4,124 sq. yds. brick paving, at 79 cts. . . . .	3,257 96
542 sq. yds. cross-walks laid, at \$1.42 . . . . .	769 64
Extra work, as ordered . . . . .	635 98
	<hr/>
	14,882 28

**\$33,634 98**

Amount paid for work done by Sewer Division: Repairing  
10 catch-basins and building 1 new catch-basin . . . . .

264 38

**\$33,899 36**

Amount of special appropriation . . . . .

**\$33,899 36**

\$721.61 of this amount retained from Grant & Co.

**Dupont street, edgestone.**

230 sq. yds. 6-in. macadam.

Labor . . . . .	\$113 00
Teaming . . . . .	142 50
Gravel . . . . .	54 23
Stone . . . . .	102 60
232 $\frac{1}{2}$ ft. of edgestone and 4 corners . . . . .	177 27

Amount paid to P. Brennan & Co. for paving:

266 ft. of edgestone set, at 8 cts. . . . .	\$21 28
137.3 sq. yds. block paving laid, at 25 cts. . . . .	34 33
	<hr/>

55 61

**\$645 21**

Amount of special appropriation . . . . .

524 00

Amount paid out of Paving Division appropriation . . . . .

**\$121 21**

**Eagle square, cross-walks, etc.**

Labor . . . . .	\$284 55
Teaming . . . . .	99 00
Gravel . . . . .	199 75
Sand . . . . .	12 00
4,062 granite paving-blocks . . . . .	93 43
253 5 ft. of flagging . . . . .	291 43

Amount paid to Roger Devlin for paving:

110.2 sq. yds. brick paving laid, at 18 cts. . . . .	19 84
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**\$1,000 00**

**E street, Third to Bolton street, etc., asphaltting.**

Labor, including engineering and inspection . . . . .	\$238 60
Teaming . . . . .	18 00
Sundries . . . . .	10 00

Amount paid for asphaltting, as per contract with New England Paving Co.:

1,020.4 sq. yds. asphalt laid, at \$2.75 . . . . .	\$2,806 10
456.4 sq. yds. brick paving laid, at 45 cts. . . . .	205 38
172.5 sq. yds. cross-walks laid, at 60 cts. . . . .	103 50
630.1 lin. ft. of edgestone set, at 18 cts. . . . .	113 42
Extra work, as ordered . . . . .	74 46
	<hr/>
	3,302 86

**\$3,569 46**

Amount paid for work done by Sewer Division: Building  
1 new catch-basin and repairing 1 manhole . . . . .

182 43

**\$3,751 89**

Amount charged for filling to L street . . . . . \$120 00  
Amount retained from New England Paving Co. . . . . 161 42

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281 42

**\$3,470 47**

Amount of special appropriation . . . . .

3,000 00

Amount paid out of Paving Division appropriation . . . . .

**\$470 47**

**East First street, H to K, edgestones and gutters.**

600 ft. edgestone . . . . .	\$360 00
200 sq. yds. gutter paving, at 25 cts. . . . .	50 00
600 ft. edgestone setting, at 8 cts. . . . .	48 00
Labor . . . . .	240 00
Teaming . . . . .	170 00
Gravel . . . . .	132 00

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\$1,000 00

Amount of special appropriation . . . . .

1,000 00

**East Concord street, Harrison avenue to Albany, regulating and macadamizing.**

1,890 sq. yds. 6-in. macadam.

Labor . . . . .	\$1,383 64
Teaming . . . . .	1,047 75
Stone . . . . .	742 95
Roller . . . . .	140 00
Flagging . . . . .	147 00
Gravel . . . . .	444 37
Sand . . . . .	178 20
Edgestone, 644 ft. . . . .	360 78

Amount paid for work done by Sewer Division: Repairing  
2 catch-basins and 2 manholes . . . . .

55 31

Amount paid for paving to Daniel Sullivan:

2,097.1 lin. ft. edgestones set, at 8 cts. . . . .	\$167 76
3,208.1 sq. yds. block paving laid, at 25 cts. . . . .	802 02
1,266.2 sq. yds. brick paving laid, at 18 cts. . . . .	227 91
1,415 sq. yds. digging, at 10 cts. . . . .	141 50

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1,339 14

*Amount carried forward,*

**\$5,839 14**

<i>Amount brought forward,</i>	\$5,839 14
Amount of special appropriation . . . . .	4,500 00
Amount paid out of Paving Division appropriation . . .	<u>\$1,339 14</u>

**East Newton street, Harrison avenue to Albany, regulating and macadamizing.**

2,200 sq. yds. 6-in. macadam.

Labor . . . . .	\$1,306 91
Teaming . . . . .	144 00
Gravel . . . . .	216 10
Stone . . . . .	898 70
Roller . . . . .	140 00
Edgestone, 691 ft. . . . .	386 96
Sundries . . . . .	164 50
Amount paid for work done by Sewer Division: Repairing 2 manholes . . . . .	9 79

Amount paid to Roger Devlin for paving:

1,068.7 lin. ft. edgestones set, at 8 cts. . . . .	\$85 50
451.6 sq. yds. block paving laid, at 25 cts. . . . .	112 89
494.5 sq. yds. brick paving laid, at 18 cts. . . . .	89 01
	<u>287 40</u>

Amount of special appropriation . . . . .	<u>\$3,554 36</u>
	<u>3,554 36</u>

**Edgeworth street, repaving.**

Labor . . . . .	\$137 35
Teaming . . . . .	141 00
Gravel . . . . .	70 00
Crushed stone . . . . .	88 90

	<u>\$437 25</u>
Amount of special appropriation . . . . .	400 00

Amount paid out of Paving Division appropriation . . .	<u>\$37 25</u>
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**Ellwood street, regulating and macadamizing.**

186 sq yds., 6-in. macadam.

Labor . . . . .	\$607 67
Teaming . . . . .	173 98
Roller . . . . .	50 00
Stone . . . . .	74 40
Gravel . . . . .	76 67
Edgestone, 375 ft. . . . .	262 34
Sundries . . . . .	6 00

\$1,251 06

**Emerald street, paving.**

Labor . . . . .	\$374 60
Teaming . . . . .	181 50
Gravel . . . . .	91 69
Sand . . . . .	11 70
Sundries . . . . .	135 36

*Amount carried forward,*

\$794 85

## STREET DEPARTMENT.

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*Amount brought forward,*

\$794 85

## Amount paid to J. Doherty &amp; Co. for paving:

405.6 lin. ft. edgestones set, at 8 cts.	\$32 45
374.6 sq. yds. brick paving laid, at 28 cts.	104 89
100 lin. ft. edgestones set, at 18 cts.	18 00
760 sq. yds. block paving laid (tar joints), at 97 cts.	737 20
144 sq. yds. digging, at 10 cts.	14 40

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906 94

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\$1,701 79

Amount of special appropriation . . . . .1,574 98

Amount paid out of Paving Division appropriation . . .

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\$126 81**Emerson street, H to I, paving.**

Labor . . . . .	\$429 60
Teaming . . . . .	782 34
32,720 granite paving-blocks . . . . .	2,386 92
Wharfage on paving-blocks . . . . .	45 00
5,800 paving-bricks . . . . .	66 70
Gravel . . . . .	331 80
Sand . . . . .	31 50
Sundries . . . . .	3 72
Amount paid for excavating to M. Donnellan . . . . .	412 70

## Amount paid to H. Gore &amp; Co. for paving:

791.3 lin. ft. edgestones set, at 8 cts.	\$63 30
1,176.5 sq. yds. block paving laid, at 25 cts.	294 12
497.3 sq. yds. brick paving laid, at 18 cts.	89 51

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446 98

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\$4,937 21

## Amount paid for work done by Sewer Division: Building

1 new manhole . . . . .62 79

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\$5,000 00**Exeter street, repairing.**

Teaming . . . . .	\$140 00
Labor . . . . .	176 50

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\$316 50**Falcon street, grading and gravelling.**

Labor . . . . .	\$1,693 90
Teaming . . . . .	727 50
Gravel . . . . .	959 00

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\$3,380 40**First street, N. Y. & N. E. R.R. to F street, paving.**

Labor, including engineering and inspection . . . . .	\$1,553 74
Teaming . . . . .	106 50
1,599.4 ft. edgestone and 22 corners . . . . .	1,076 58
1,465.4 ft. flagging . . . . .	1,538 67
50,247 paving-bricks . . . . .	615 63
235,047 granite paving-blocks . . . . .	17,085 42

*Amount carried forward,*

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\$21,976 54

<i>Amount brought forward,</i>	\$21,976 54
Wharfage on paving-blocks . . . . .	621 88
Sundries . . . . .	77 07
Amount paid for paving as per contract with Collins & Ham :	
9,400 sq. yds. block paving laid, at \$1.18 . . . . .	\$11,092 00
4,434 lin. ft. edgestone set, at 55 cts. . . . .	2,438 70
1,897 sq. yds. brick paving laid, at 91 cts. . . . .	1,726 27
337 sq. yds. cross-walks laid, at \$1.15 . . . . .	387 55
Extra work, as ordered . . . . .	491 72
	<hr/> 16,136 24
	\$38,811 73
Amount paid for work done by Sewer Division: Building 6 new catch-basins . . . . .	652 49
	<hr/> \$39,464 22
Amount charged to L street, filling . . . . .	876 25
	<hr/> \$38,587 97
Amount of special appropriation . . . . .	36,489 93
	<hr/> \$2,098 04
Amount retained from Collins & Ham to be paid out of the appropriation for First street, Amount paid out of Paving Division appropriation . . . . .	\$806 81
	1,291 23
	<hr/> \$2,098 04
<b>Forbes street, grading and macadamizing.</b>	
3,500 sq. yds. 4-in. macadam.	
2,000 sq. yds. gravel sidewalk.	
Labor . . . . .	\$595 37
Teaming . . . . .	694 50
Stone . . . . .	794 20
Gravel . . . . .	1,607 55
Roller . . . . .	140 00
Sundries . . . . .	144 71
	<hr/> \$3,976 33
Paid from special appropriation . . . . .	2,020 75
	<hr/> \$1,955 58
<b>Fourth street, G street to H street, resurfacing.</b>	
Labor . . . . .	\$440 70
Teaming . . . . .	432 00
Gravel . . . . .	75 05
Rolling . . . . .	78 00
Sundries . . . . .	1 80
	<hr/> \$1,027 55
Work done by Sewer Division: Building 1 new manhole . . . . .	104 80
	<hr/> \$1,132 35
Amount of special appropriation . . . . .	1,104 35
	<hr/> \$28 00

**Fulda street, repairs.**

Teaming . . . . .	\$9 00
Labor . . . . .	7 69
	<hr/>
	\$16 69

Amount paid for work done by Sewer Division: Building  
2 new catch-basins . . . . .

308 06

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\$324 75
**Fulton street, Richmond street to Lewis street, paving.**

Labor, including engineering and inspection . . . . .	\$400 09
47,677 granite paving-blocks . . . . .	3,483 88
15,600 paving-brick . . . . .	178 25
28, $\frac{1}{2}$ ft. of edgestone . . . . .	16 10
45, $\frac{1}{2}$ ft. of flagging . . . . .	48 20
Sundries . . . . .	29 89

Amount paid for paving, as per contract with B. F. Nay  
& Co.:

1,829 sq. yds. block paving laid, at \$1.03 . . . . .	\$1,883 87
955 lin. ft. edgestone set, at 21 cts. . . . .	200 55
621 sq. yds. brick paving laid, at 63 cts. . . . .	391 23
14 $\frac{1}{2}$ sq. yds. cross-walks laid, at 55 cts. . . . .	7 98
Extra work, as ordered . . . . .	346 15

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2,829 78

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\$6,986 19

Amount paid for work done by Sewer Division: Building 2  
new catch-basins . . . . .

244 28

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\$7,230 42
**Genesee street, paving.**

Labor, including inspection and engineering . . . . .	\$356 40
Teaming . . . . .	3 00
7,000 paving-brick . . . . .	87 50
36 ft. of edgestone . . . . .	20 84
350 granite paving-blocks . . . . .	25 55

Amount paid for paving, as per contract with H. Gore &  
Co.:

1,091 sq. yds. brick paving laid, at \$2.75 . . . . .	\$3,000 25
1,005 lin. ft. edgestone set, at 15 cts. . . . .	150 75
479 sq. yds. brick paving laid, at 43 cts. . . . .	205 97
28 sq. yds. cross-walks laid, at 55 cts. . . . .	15 40

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\$3,372 37

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\$3,865 66

Amount of special appropriation . . . . .

3,500 00

Amount paid out of Paving Division appropriation . . . . .

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\$365 66
**Geneva avenue, grading.**

Labor . . . . .	\$923 55
Rubble and filling . . . . .	1,160 10
Gravel . . . . .	420 00
Sundries . . . . .	5 00

Amount carried forward,

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\$2,508 65

<i>Amount brought forward,</i>	\$2,508 65
Amount paid to A. A. Hall, for excavating:	
680 cu. yds. earth excavated, at 60 cts. . . .	\$408 00
92 cu. yds. rock excavated, at \$1.00 . . . .	92 00
	<hr/>
	500 00
Amount paid to Wm. T. Davis, for excavating:	
334 cu. yds. earth cutting, at 40 cts. . . .	\$133 60
189 cu. yds. borrowed filling at 85 cts. . . .	160 65
12 cu. yds. bowlders blasted, at \$2.50 . . . .	30 00
	<hr/>
	324 25
	<hr/>
	\$3,332 90
Amount paid for work done by Sewer Division: Building	
517.5 ft. 4 ft. 6 in. X 3 ft. 6 in. circular sewer . . . .	2,916 89
	<hr/>
	<u>\$6,249 79</u>

**Goldsmith street, grading and gravelling.**

Labor . . . . .	\$335 80
Teaming . . . . .	150 00
Gravel . . . . .	494 20
Sundries . . . . .	42 88
	<hr/>
	\$1,022 88
Amount of special appropriation . . . . .	1,000 00
	<hr/>
Amount paid out of Paving Division appropriation . . . .	<u>\$22 88</u>

**Granite avenue, macadamizing.**

6,500 sq. yds. 15-in. Telford macadam.	
1,800 sq. yds. gravel sidewalk.	
Labor . . . . .	\$3,602 39
Teaming . . . . .	1,443 00
Roller . . . . .	287 00
Stone . . . . .	6,600 49
Gravel . . . . .	452 25
93 sq. yds. block paving, at 25 cts. . . . .	23 25
	<hr/>
	\$12,408 38
Amount paid for work done by Sewer Division: Building	
6 new catch-basins and 44 feet 12-in. pipe sewer . . . .	795 83
	<hr/>
	\$13,204 21
Amount of special appropriation . . . . .	10,000 00
	<hr/>
Amount paid out of Paving Division appropriation . . . .	<u>\$3,204 21</u>

**Green street, Charlestown, macadamizing.**

400 sq. yds. 6-in. macadam.	
Labor . . . . .	\$103 05
Teaming . . . . .	100 50
Gravel . . . . .	52 50
Roller . . . . .	24 00
Crushed stone . . . . .	180 41
	<hr/>
	<u>\$460 46</u>

**Gustin street, sewer and macadamizing.**

280 sq. yds. Telford macadam.

Labor . . . . .	\$394 22
Teaming . . . . .	336 00
Gravel . . . . .	29 20
Filling . . . . .	86 65
Stone . . . . .	240 68
640 feet edgestone and 18 corners . . . . .	458 74
950 granite paving-blocks . . . . .	69 35

Amount paid for paving to H. Gore &amp; Co.:

646.5 lin. ft. edgestone set, at 8 cts. . . . .	\$51 72
218.7 sq. yds. block paving laid, at 25 cts. . . . .	54 68

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106 40

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\$1,721 24

Amount paid for work done by Sewer Division: Building

347.13 ft. 12-in. pipe sewer . . . . .	575 90
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\$2,297 14

Amount of special appropriation . . . . .

1,700 00

Amount paid out of Paving Division appropriation . . . . .

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\$597 14

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**Hampshire street, regulating.**

Labor . . . . .	\$208 67
Teaming . . . . .	414 00
Sand . . . . .	354 20
Crushed stone . . . . .	22 88
Gravel . . . . .	49 60
38 feet of edgestone and 6 corners . . . . .	49 10

Amount paid for paving to Jas. Doherty &amp; Co.:

1,451 6 lin. ft. of edgestone set, at 18 cts. . . . .	\$261 29
683.3 sq. yds. block paving laid, at 35 cts. . . . .	239 16
312.5 sq. yds. brick paving laid, at 28 cts. . . . .	95 90

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596 35

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\$1,694 80

Amount of special appropriation . . . . .

1,000 00

Amount paid out of Paving Division appropriation . . . . .

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\$694 80

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**Harrison avenue, Canton street to Sharon street.**

Labor . . . . .	\$2,232 65
Teaming . . . . .	121 50
Gravel . . . . .	312 00
Sand . . . . .	89 10
512.6 feet of flagging . . . . .	546 75

Amount paid for paving to H. Gore &amp; Co.:

910.1 lin. ft. of edgestone set, at 8 cts. . . . .	\$72 81
1,750.9 sq. yds. block paving, at 25 cts. . . . .	437 72
910.4 sq. yds. brick paving, at 18 cts. . . . .	163 87

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674 40

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\$3,926 40

Amount paid for work done by Sewer Division: Repairing

8 catch-basins . . . . .	73 60
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\$4,000 00



**Harrison avenue, E. Concord to E. Chester park.**

Labor . . . . .	\$1,019 53
Teaming . . . . .	97 50
Beach gravel . . . . .	29 82
Hill gravel . . . . .	40 00
Sand . . . . .	18 70
81.5 ft. flagging . . . . .	85 57
596.8 sq. yds. of block paving . . . . .	208 88
	<hr/>
	<b>\$1,500 00</b>

**Harrison avenue, E. Lenox street to Northampton street.**

Labor . . . . .	\$1,464 11
Teaming . . . . .	265 50
Gravel . . . . .	305 60
Sand . . . . .	10 20
83 ft. circular edgestone . . . . .	42 90
81.5 ft. flagging . . . . .	85 58
Amount paid to J. McCarthy for excavating:	
469 sq. yds. old paving carted away, at 23½ cts.,	\$110 22
317 cu. yds. earth and gravel excavated, at	
69½ cts. . . . .	220 32
	<hr/>
	330 54
Amount paid for paving to Payson & Co.:	
944.3 lin. ft. edgestone set, at 8 cts. . . . .	\$75 54
1,367.9 sq. yds. block paving laid, at 25 cts. . . . .	341 97
249.9 sq. yds. brick paving laid, at 18 cts. . . . .	44 98
	<hr/>
	462 49
	<hr/>
	\$2,966 92
Amount paid for work done by Sewer Division: Repairing	
2 manholes . . . . .	33 08
	<hr/>
	<b>\$3,000 00</b>

**Harvard street, Washington to Albany street, sewer and paving.**

Paving . . . . . **\$77 78**

**Harvest street, Boston street to Dorchester avenue, regulating and macadamizing.**

200 sq. yds. 6-in. macadam, 900 sq. yds. gravel sidewalk.	
Labor . . . . .	\$971 75
Teaming . . . . .	537 00
Sand . . . . .	7 20
Stone . . . . .	742 26
1,915 feet edgestone and 18 corners . . . . .	1,457 98
7,365 granite paving-blocks . . . . .	204 38
Sundries . . . . .	88 48
Amount paid for paving to J. Grant & Co.:	
2,122 feet of edgestone set, at 15 cts. . . . .	\$318 30
679 sq. yds. block paving laid, at 40 cts. . . . .	271 60
	<hr/>
	589 90
	<hr/>
	<b>\$1,598 95</b>
Amount paid for work done by Sewer Division: Building	
2 new catch-basins . . . . .	231 79
	<hr/>

*Amount carried forward,*

**\$4,830 74**

## STREET DEPARTMENT.

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<i>Amount brought forward,</i>	\$4,830 74
Amount of special appropriation . . . . .	4,000 00
Amount paid out of Paving Division appropriation . . . . .	<u>\$830 74</u>

**Haskins street, edgestones and macadamizing.**

900 sq. yds. 4-in. macadam, 700 sq. yds. gravel sidewalk.	
Labor . . . . .	\$689 74
Teaming . . . . .	231 00
Gravel . . . . .	190 40
Crushed stone . . . . .	257 57
1,211 feet edgestone and 4 corners . . . . .	802 15
Amount paid for paving to Payson & Co.:	
1,189.3 lin. feet edgestone set, at 27 cts. . . . .	\$321 11
416.9 sq. yds. block paving laid, at 65 cts. . . . .	270 98
2.3 sq. yds. brick paving laid, at 28 cts. . . . .	64
	<u>592 75</u>

\$2,763 59

Amount paid for work done by Sewer Division: Repairing 2 catch-basins and 4 manholes . . . . .	46 20
	<u>\$2,809 79</u>

**Heath street, widening, etc.**

Labor . . . . .	\$1,065 80
Teaming . . . . .	379 50
Gravel . . . . .	710 60
Sand . . . . .	158 40
3,700 paving-brick . . . . .	44 40
16 corners . . . . .	60 00
Sundries . . . . .	26 32
Amount paid for paving to J. Doherty & Co.:	
592.5 sq. yds. brick paving, at 18 cts. . . . .	\$106 65
412.3 sq. yds. block paving, at 25 cts. . . . .	103 08
1,419.8 lin. feet edgestone set, at 8 cts. . . . .	113 58
	<u>323 31</u>

\$2,768 33**Henley street, paving.**

Labor . . . . .	\$184 00
Teaming . . . . .	39 00
Gravel . . . . .	287 98
29,650 granite paving-blocks . . . . .	2,312 70
7,500 paving-brick . . . . .	86 25
56 $\frac{1}{2}$ feet edgestone . . . . .	39 32
Amount paid for paving to J. Turner & Co.:	
668 lin. feet of edgestone set, at 15 cts. . . . .	\$100 20
1,351.7 sq. yds. block paving laid, at 48 cts. . . . .	648 82
347.1 sq. yds. brick paving laid, at 43 cts. . . . .	149 25
	<u>898 27</u>

\$3,847 52

**High street, Winthrop street to Walker street, resurfacing.**

1,900 sq. yds. 6-in. macadam.

Labor . . . . .	\$558 90
Teaming . . . . .	435 00
Gravel . . . . .	350 00
Stone . . . . .	781 23
	<u>\$2,125 13</u>

**Hill street, construction.**

Labor . . . . .	\$800 40
Teaming . . . . .	111 00
Hill gravel . . . . .	30 00
Beach gravel . . . . .	56 80
Stone . . . . .	306 17
489.1 feet edgestone and 2 corners . . . . .	349 57
Sundries . . . . .	6 50

Amount paid to Donovan &amp; Brock, as per contract:

Building retaining-wall . . . . .	\$1,475 00
Extra work, as ordered . . . . .	22 44
	<u>1,497 44</u>

Amount paid for paving to P. Brennan &amp; Co.:

489.4 lin. ft. edgestone set, at 8 cts. . . . .	\$39 15
178.8 sq. yds. block paving, at 25 cts. . . . .	44 70
	<u>83 85</u>

\$3,241 73

Amount paid for work done by Sewer Division: 239 ft.

12-in. pipe sewer built . . . . .	896 34
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\$4,138 07**Hobart street, grading and gravelling roadway and sidewalks, building culvert and fencing.**

950 feet fence.

4,120 sq. yds. gravel roadway.

2,060 sq. yds. gravel sidewalk.

Labor . . . . .	\$1,180 94
Teaming . . . . .	415 50
Gravel . . . . .	2,047 48
Edgestone, 25½ feet . . . . .	15 30
Constructing culvert . . . . .	475 81
Sundries . . . . .	78 34

\$4,213 37

Paid by special appropriation . . . . .	2,000 00
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Paid out of Paving Division appropriation . . . . .	<u>\$2,213 37</u>
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**Hollis street, asphaltting and repaving.**

Labor . . . . .	\$1,611 88
Teaming . . . . .	67 50
85 feet flagging . . . . .	97 75
1,419 granite paving-blocks . . . . .	103 57
Gravel . . . . .	29 11
Sundries . . . . .	14 00
477.7 sq. yds. asphalt . . . . .	955 40

*Amount carried forward,*\$2,879 21

## STREET DEPARTMENT.

263

<i>Amount brought forward,</i>		\$2,879 21
Amount paid for paving to Payson & Co.:		
270 lin. ft. of edgestone set, at 8 cts.	\$21 60	
268.2 sq. yds. block paving laid (tar joints), at 97 cts.	260 15	
164.6 sq. yds. brick paving laid, at 18 cts.	29 63	
		<hr/> 311 38
		\$3,190 59
Amount of special appropriation		3,087 02
Amount paid out of Paving Division appropriation		<hr/> \$103 57

**Howland street, resurfacing and regulating.**

4,000 sq. yds. 6-in. macadam.		
Labor		\$1,176 40
Teaming		417 00
Gravel		596 40
Sand		257 60
Stone		1,736 47
4,000 paving-brick		50 00
159 feet flagging		166 95
62 feet circular edgestone		81 38
Sundries		18 00
Amount paid for paving to A. A. Libby & Co.:		
971 lin. feet edgestone set, at 15 cts.	\$145 65	
537 sq. yds. block paving laid, at 35 cts.	187 95	
942 sq. yds. brick paving laid, at 28 cts.	263 76	
438 lin. feet edgestone set, at 20 cts.	87 60	
143 sq. yds. block paving, at 50 cts.	71 50	
3,043 sq. yds. brick paving, at 35 cts.	106 51	
		<hr/> 862 97
		\$5,363 17
Amount paid for work done by the Sewer Division: Building 3 new catch-basins		464 61
		<hr/> \$5,827 78
Amount of special appropriation		4,000 00
Amount paid out of Paving Division appropriation		<hr/> \$1,827 78

**Hudson street, asphaltting and regulating.**

Labor, including inspection and engineering		\$1,029 00
Teaming		60 00
Raising sidewalk		150 00
Mason-work		406 00
Gravel		26 98
620.7 ft. edgestone and 2 corners		454 57
3,859 granite paving-blocks		281 70
47,600 paving-brick		571 20
Sundries		31 47
Amount paid for asphaltting, as per contract with Barber Asphalt Paving Co.:		
3,961 sq. yds. asphalt laid, at \$3.50	\$13,863 50	
3,300.5 lin. feet edgestone set, at 42 cts.	1,386 21	
2,533 sq. yds. brick paving laid, at 90 cts.	2,279 70	
		<hr/>
<i>Amounts carried forward,</i>	\$17,529 41	\$3,010 92

<i>Amounts brought forward.</i>	\$17,529 41	\$3,010 92
187.6 sq. yds. cross-walks laid, at \$1.05 . . . . .	196 98	
Extra work, as ordered . . . . .	629 12	
	<hr/>	18,355 51

Amount paid for work done by Sewer Division: Repairing 13 catch-basins and 7 manholes . . . . .	298 91	\$21,366 43
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Amount of special appropriation . . . . .	21,000 00	\$21,665 34
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Amount paid out of Paving Division appropriation . . . . .	\$665 34	
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\$886.32 retained from Barber Asphalt Paving Co. under the terms of the contract.

### **Humboldt avenue, grading, regulating, and macadamizing.**

15,000 sq. yds. 15-in. Telford macadam.		
Labor . . . . .	\$7,338 00	
Teaming . . . . .	2,760 00	
Gravel . . . . .	2,737 00	
Sand . . . . .	57 60	
Crushed stone . . . . .	15,790 18	
Steam-roller . . . . .	84 00	
1,630 feet of edgestone and 4 corners . . . . .	1,690 45	
3,300 paving-brick (face) . . . . .	56 10	
Sundries . . . . .	412 00	
Amount paid for paving to A. A. Libby & Co.:		
1,034.8 lin. feet edgestone set, at 8 cts. . . . .	\$82 78	
365.2 sq. yds. block paving laid, at 25 cts. . . . .	91 38	
1,807.5 lin. feet edgestone set, at 20 cts. . . . .	361 50	
742 sq. yds. block paving laid, at 50 cts. . . . .	371 00	
211 sq. yds. brick paving laid, at 35 cts. . . . .	73 89	
59.5 feet fence curbing, at \$2.00 . . . . .	119 00	
	<hr/>	1,099 55

Amount of special appropriation . . . . .	\$32,024 88	
	<hr/>	16,025 27

Amount paid out of Paving Division appropriation . . . . .	\$15,999 61	
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### **Hunneman street, grading and constructing.**

Labor . . . . .	\$82 80	
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### **Island street.**

Labor . . . . .	\$25 60	
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### **Jeffries and Marginal streets, regulating and macadamizing.**

2,200 sq. yds. 6-in. macadam.		
Labor . . . . .	\$1,260 30	
Teaming . . . . .	613 50	
Gravel . . . . .	1,056 14	
Sand . . . . .	16 00	
Crushed stone . . . . .	899 36	
1,580 ft. edgestone and 18 corners . . . . .	1,181 60	

*Amount carried forward,*

\$5,026 90

## STREET DEPARTMENT.

265

<i>Amount brought forward,</i>	\$5,026 90
Amount paid for paving to Roger Devlin :	
1,956.4 lin. ft. of edgestone set, at 8 cts. . . . .	\$156 51
1,090.7 sq. yds. block paving laid, at 25 cts. . . . .	272 67
134.1 sq. yds. brick paving laid, at 18 cts. . . . .	24 13
	<hr/> 453 31
	\$5,480 21
Amount paid for work done by Sewer Division : Repairing	
2 catch-basins and 1 manhole . . . . .	36 40
	<hr/> \$5,516 61
Amount of special appropriation . . . . .	5,000 00
	<hr/> \$516 61
Amount paid out of Paving Division appropriation . . . . .	<hr/> <hr/> \$516 61
<b>K street, Fourth street to Eighth street, resurfacing.</b>	
Labor . . . . .	\$465 00
Teaming . . . . .	177 00
Gravel . . . . .	36 34
	<hr/> \$678 34
<b>Kingston street, Summer street to Essex street, paving (see Bedford and Kingston streets).</b>	
<b>Lake street, grading and macadamizing, building culvert, fences, plank-walks and cross-walks and retaining-wall.</b>	
1,300 lin. ft. plank-walk.	
1,400 ft. fence.	
450 ft. board fence.	
130 perches retaining-wall.	
5,600 sq. yds. Telford macadam road.	
1,500 sq. yds. gravel sidewalk.	
Labor . . . . .	\$4,349 18
Teaming . . . . .	1,936 82
Gravel . . . . .	1,644 40
Stone . . . . .	4,423 86
Flagging, 402 ft., at 80 cts. . . . .	322 00
Sundries . . . . .	261 11
Constructing culverts by Sewer Division; 4 new catch-basins and 83.85 ft. stone culvert (double) . . . . .	2,705 54
	<hr/> \$15,642 91
Paid by special appropriation . . . . .	12,000 00
	<hr/> \$3,642 91
Amount paid out of Paving Division appropriation . . . . .	<hr/> <hr/> \$3,642 91
<b>L street, grading, constructing, and filling bulkhead.</b>	
Labor . . . . .	\$2,204 89
Teaming . . . . .	130 00
Stone ballast . . . . .	5,296 15
Filling . . . . .	3,307 20
Sundries . . . . .	144 03
Amount paid for building bulkhead, as per contract with F. G. Whitcomb . . . . .	7,210 00
Amount paid for abutment for bridge . . . . .	2,806 70
	<hr/> \$21,098 97

**Lenox street, paving and regulating.**

Labor . . . . .	\$892 72
Teaming . . . . .	628 50
Gravel . . . . .	1,249 60
Sand . . . . .	42 50
462.4 ft. flagging . . . . .	554 88
7,600 paving-brick . . . . .	94 99
37,087 granite paving-blocks . . . . .	2,781 52

Amount paid to J. McCarthy & Co., for excavating:

1,878 sq. yds. stone paving carted, at 37 cts. . . . .	\$704 25
660 cu. yds. earth excavated, at 59 cts. . . . .	389 40
	<hr/>
	1,093 65
771 lin. ft. edgestone set, at 8 cts. . . . .	\$61 68
4,348.6 sq. yds. block paving laid, at 25 cts. . . . .	1,087 15
471.7 sq. yds. brick paving laid, at 18 cts. . . . .	84 91
	<hr/>
	1,233 74

**\$8,572 10**

Amount of special appropriation . . . . .	5,474 41
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Amount paid out of Paving Division appropriation . . . . .	<b>\$3,097 69</b>
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**Lincoln street, Charlestown, regulating and macadamizing.**

900 sq. yds. 6-in. macadam.

Labor . . . . .	\$827 25
Teaming . . . . .	390 00
Sand . . . . .	69 19
Gravel . . . . .	211 31
Crushed stone . . . . .	360 76
1,000 paving-brick . . . . .	120 00

Amount paid for paving to J. Turner & Co.:

1,127.7 lin. ft. edgestone set, at 8 cts. . . . .	\$90 22
394.4 sq. yds. block paving laid, at 25 cts. . . . .	98 60
737.1 sq. yds. brick paving laid, at 18 cts. . . . .	132 67
	<hr/>
	321 49

**\$2,300 00**

**Longwood avenue, Parker street to Huntington avenue, paving.**

Labor, including inspection and engineering . . . . .	\$3,149 34
Teaming . . . . .	294 00
200,777 granite paving-blocks . . . . .	9,637 29
62,755 paving-brick . . . . .	730 14
39.1 feet edgestone . . . . .	28 95
819.2 feet flagging . . . . .	871 24
Sundries . . . . .	117 33

Amount paid for paving, as per contract with J. Doherty & Co.:

5,313 sq. yds. block paving laid, at \$1.22 . . . . .	\$6,481 86
2,796 lin. feet edgestone set, at 15 cts. . . . .	419 40
1,774 sq. yds. brick paving laid, at 66 cts. . . . .	1,170 84
206 sq. yds. cross-walks laid, at 27 cts. . . . .	55 62
Extra work, as ordered . . . . .	29 90
	<hr/>
	8,157 62

*Amount carried forward,*

**\$22,985 91**

*Amount brought forward,* \$22,985 91  
 Amount paid for work done by Sewer Division : Repairing  
 1 catch-basin . . . . . 14 09

Amount of special appropriation . . . . . \$23,000 00  
\$23,000 00

\$407 88 of this amount retained from J. Doherty & Co.

**Lucas street, paving with asphalt blocks.**

Teaming . . . . . \$72 00  
 76.2 sq. yds. asphalt block paving laid, at \$3.10 . . . 236 22  
\$308 22

**Lynde street, macadamizing.**

Labor . . . . . \$653 20  
 Teaming . . . . . 240 00  
 Gravel . . . . . 127 50  
 Crushed stone . . . . . 583 09  
\$1,603 79

**Magazine street, grading.**

Labor . . . . . \$117 30  
 Stone screenings . . . . . 808 50  
\$925 80

**Magnolia street, regulating.**

Labor . . . . . \$642 46  
 Teaming . . . . . 742 50  
 Gravel . . . . . 732 20  
 Crushed stone . . . . . 81 34  
 Sand . . . . . 41 60  
 1,565.7 feet edgestone . . . . . 1,103 47

Amount paid for paving to A. A. Libby & Co. :  
 721 7 lin. feet edgestone set, at 20 cts. . . . \$144 34  
 289.4 sq. yds. block paving laid, at 50 cts. . . 144 70  
 426.8 sq. yds. brick paving laid, at 35 cts. . . 149 38  
438 42

Amount paid for paving to J. Doherty & Co. :  
 1,585 lin. feet edgestone set, at 15 cts. . . \$237 75  
 580 sq. yds. block paving laid, at 35 cts. . . 203 00  
440 75

Amount of special appropriation . . . . . \$4,222 74  
 4,000 00

Amount paid out of Paving Division appropriation . . . \$222 74

**Malden street, and junction of Wareham street, and Wareham street, Harrison avenue to Albany street, paving and regulating.**

Labor . . . . . \$4,254 98  
 Teaming . . . . . 1,551 00

*Amount carried forward,* \$5,805 98



<i>Amount brought forward,</i>	<b>\$5,805 98</b>
Gravel . . . . .	1,368 58
95,680 granite paving-blocks . . . . .	7,083 63
43.8 feet edgestone . . . . .	24 74
142 feet flagging . . . . .	150 03
Sundries . . . . .	16 87

Amount paid for excavating to J. J. Sullivan:	
4,469 sq. yds. round stone removed, at 55 cts. .	\$2,457 95
300 sq. yds. round stone removed, at 35 cts. .	105 00
	<hr/>
	2,562 95

Amount paid for paving to J. Turner & Co.:	
2,617 lin. feet edgestone set, at 8 cts. .	\$209 36
4,517.1 sq. yds. block paving laid, at 25 cts. .	1,129 27
740.5 sq. yds. block paving laid (tar joints),	
at 97 cts. .	718 29
732.3 sq. yds. brick paving laid, at 18 cts. .	131 81
	<hr/>
	2,188 73

**\$19,201 51**

Amount paid for work done by Sewer Division: Building	
2 new catch-basins and repairing 2 others . . . .	327 10

**\$19,528 61**

Amount of appropriation for Malden street .	\$6,000 00
Amount of appropriation for Wareham street .	13,024 62
	<hr/>
	19,024 62

Amount paid out of Paving Division appropriation . .	<b>\$503 99</b>
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**Matthews street, including Leather square, paving.**

Labor . . . . .	\$1,271 90
Teaming . . . . .	279 00
41,072 granite paving-blocks . . . . .	3,009 35
Gravel . . . . .	316 18
8 feet edgestone . . . . .	4 80
2,450 paving-brick . . . . .	30 62

**\$4,911 85**

Amount of special appropriation . . . . .	4,560 25
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Amount paid out of Paving Division appropriation . .	<b>\$351 60</b>
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**Maynard street, grading.**

Labor . . . . .	\$832 90
Teaming . . . . .	1,059 00
Gravel . . . . .	407 40
36.6 feet edgestone . . . . .	47 65
Sundries . . . . .	9 11

**\$2,356 06**

Amount paid for work done by Sewer Division: Building	
65 feet 15-in. pipe culvert . . . . .	88 87

**\$2,444 93**

Amount of special appropriation . . . . .	2,000 00
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Amount paid out of Paving Division appropriation . .	<b>\$444 93</b>
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**Medford street, Lexington street to Chelsea street, paving and regulating.**

Labor . . . . .	\$3,050 05
Teaming . . . . .	1,162 50
Hill gravel . . . . .	519 86
Beach gravel . . . . .	941 46
145,582 granite paving-blocks . . . . .	11,355 40
150 feet flagging . . . . .	172 50
31,500 paving-brick . . . . .	376 25
87 $\frac{1}{2}$ feet edgestone . . . . .	65 88
Sundries . . . . .	127 26

Amount paid for paving to P. Brennan &amp; Co.:

2,013.5 lin. feet edgestone set, at 8 cts. . . . .	\$161 08
3,910.6 sq. yds. block paving laid, at 25 cts. . . . .	975 15
1,429 sq. yds. brick paving laid, at 18 cts. . . . .	257 22
	<hr/>
	1,393 45

Amount paid for paving to J. Turner &amp; Co.:

2,260.2 lin. feet edgestone set, at 8 cts. . . . .	\$212 82
5,043.2 sq. yds. block paving laid, at 25 cts. . . . .	1,260 80
2,405.2 sq. yds. brick paving laid, at 18 cts. . . . .	432 94
	<hr/>
	1,906 56

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\$21,071 17Amount paid for work done by Sewer Division: Building  
2 new catch-basins and repairing 6 others . . . . .

434 19

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\$21,505 36**Mercer street, Dorchester street to Eighth street, resurfacing and regulating.**

Labor . . . . .	\$434 70
Teaming . . . . .	343 00
Gravel . . . . .	78 21
800 paving-brick . . . . .	9 60
61 feet flagging . . . . .	64 05
Sundries . . . . .	10 17

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\$944 73Amount paid for work done by Sewer Division: Building  
1 new catch-basin . . . . .

110 25

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\$1,054 98**Minot street, grading, edgestones, and gutters.**

Labor . . . . .	\$2,102 80
Teaming . . . . .	391 50
4,084.3 feet edgestone, and carting . . . . .	2,995 36
Gravel . . . . .	740 25
Sundries . . . . .	1 25
54,774 granite paving-blocks . . . . .	1,259 80

Amount paid for paving to C. J. Coates:

3,829 lin. feet edgestone set, at 8 cts. . . . .	\$306 32
1,277 sq. yds. block paving laid, at 25 cts. . . . .	319 25
	<hr/>
	625 57

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\$8,116 53Amount paid for work done by Sewer Division: Building  
3 new catch-basins and repairing 1 manhole . . . . .

323 84

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\$8,440 37

**Monument court, regulating and macadamizing.**

350 sq. yds. 6-in. macadam.

Labor . . . . .	\$161 62
Teaming . . . . .	87 00
Crushed stone . . . . .	140 02
Gravel . . . . .	30 61
Roller . . . . .	42 00
Sand . . . . .	7 48
2,500 paving-brick . . . . .	28 75

\$497 48**Monument street, regulating and macadamizing.**

Labor . . . . .	\$303 30
Teaming . . . . .	195 50
Crushed stone . . . . .	803 72
Roller . . . . .	70 00
Gravel . . . . .	232 50

\$1,605 02

Amount paid for work done by Sewer Division: Building  
2 new catch-basins and repairing 1 manhole . . . .

261 85

\$1,866 87**Moon street, paving.**

Labor . . . . .	\$666 27
Teaming . . . . .	114 00
Gravel . . . . .	239 03
34.3 ft. edgestone . . . . .	19 18
41,780 granite paving-blocks . . . . .	1,963 64
1,000 paving-brick . . . . .	11 50
331 sq. yds. Barber asphalt, at \$2.25 . . . . .	744 75

\$3,758 37

Amount of special appropriation . . . . .

3,519 34

Amount paid out of Paving Division appropriation . . . .

\$239 03**Moreland street, Fairland street to Blue Hill avenue, resurfacing.**

1,800 sq. yds. 3-in. macadam.

Labor . . . . .	\$845 50
Teaming . . . . .	363 00
Gravel . . . . .	278 60
Crushed stone . . . . .	363 72
180.4 ft. flagging . . . . .	189 39

\$2,040 21

Amount of special appropriation . . . . .

2,000 00

Amount paid out of Paving Division appropriation . . . .

\$40 21**Mount Vernon street, Ward 25, grading and regulating.**

1,200 sq. yds. 6-in. macadam.

806 sq. yds. gravel sidewalk.

Labor . . . . .	\$1,371 60
Teaming . . . . .	250 50
Gravel . . . . .	436 46

*Amount carried forward,*\$2,058 56

## STREET DEPARTMENT.

271

<i>Amount brought forward,</i>	\$2,058 56
Sand . . . . .	1 96
Stone . . . . .	632 58

Amount of special appropriation . . . . .	\$2,693 10
	2,125 00

Amount paid out of Paving Division appropriation . .	<u>\$568 10</u>
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**Murdock street, grading and gravelling.**

Labor . . . . .	\$221 50
Teaming . . . . .	45 00
Gravel . . . . .	412 83
Sand . . . . .	49 00
Sundries . . . . .	29 23

\$757 56

Amount paid for work done by Sewer Division: Building 2 new catch-basins . . . . .	248 50
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\$1,006 06**National street, macadamizing, gutters, etc.**

750 sq. yds. 3-in. macadam.	
Labor . . . . .	\$470 26
Teaming . . . . .	168 00
Stone . . . . .	152 80
Gravel . . . . .	106 40
Sand . . . . .	66 51
Roller . . . . .	60 00
10,000 paving-brick . . . . .	115 00
Sundries . . . . .	1 74

Amount paid for paving to H. Gore &amp; Co.:

1,120.6 lin. feet edgestone set, at 8 cts. . . . .	\$89 65
466.4 sq. yds. block paving laid, at 25 cts. . . . .	116 61
507.7 sq. yds. brick paving laid, at 18 cts. . . . .	91 39
	<u>297 65</u>

\$1,438 86

Amount paid for work done by Sewer Division: Building 1 new manhole . . . . .	61 64
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\$1,500 00**Neponset avenue, Tileston place to Minot street, regulating and macadamizing.**

9,600 sq. yds. 8-in. macadam.	
4,500 sq. yds. gravel sidewalk.	
Labor . . . . .	\$4,773 57
Teaming . . . . .	1,675 50
Gravel . . . . .	1,614 00
Crushed stone . . . . .	4,790 03
2,955 ft. edgestone . . . . .	2,349 03
412 ft. flagging . . . . .	432 60
3,130 paving-brick . . . . .	71 99
Building retaining-wall . . . . .	659 75
Sundries . . . . .	75 93

*Amount carried forward,*\$16,442 40

<i>Amount brought forward,</i>	\$16,442 40
Amount paid for paving to C. J. Coates:	
3,257 lin. ft. edgestone set, at 8 cts.	\$260 56
1,801 sq. yds. block paving laid, at 25 cts.	458 30
	<hr/>
	\$718 86

	\$17,161 26
Amount of special appropriation	<hr/> 12,000 00

Amount paid out of Paving Division appropriation	<hr/> \$5,161 26
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**Newman street, Mercer street to Dorchester street, resurfacing.**

1,700 sq. yds. 3-in. macadam.

Labor	\$634 00
Roller	70 00
Teaming	232 50
Hill gravel	36 34
Beach gravel	21 30
Crushed stone	340 00
Sundries	7 00
	<hr/>
	\$1,341 14

Amount of special appropriation	<hr/> 1,198 26
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Amount paid out of Paving Division appropriation	<hr/> \$142 88
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**Ninth street, Old Harbor street to N street, regulating and grading.**

Labor	\$2,140 25
Teaming	1,449 00
Hill gravel	439 24
Beach gravel	40 47
Sand	49 00
1,608 ft. edgestone and 17 corners	979 42
4,000 paving-brick	48 00

Amount paid for paving to H. Gore & Co.:

94.5 lin. ft. edgestone set, at 18 cts.	\$17 01
40.6 sq. yds. block paving laid, at 35 cts.	14 21
68.8 sq. yds. brick paving laid, at 28 cts.	19 26
	<hr/>
	50 48

Amount paid for paving to P. W. Hernan:

2,600.3 lin. ft. edgestone set, at 8 cts.	\$208 02
1,095.1 sq. yds. block paving laid, at 25 cts.	273 77
473.7 sq. yds. brick paving laid, at 18 cts.	85 27
	<hr/>
	567 06

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\$5,762 92

Amount paid for work done by Sewer Division: Building  
3 new catch-basins and repairing 1 catch-basin and 1 man-  
hole.

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354 74

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\$6,117 66

**Oak street, grading and gravelling.**

Labor	\$315 50
Teaming	240 00
Gravel	363 84
Sundries	80 66

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\$1,000 00

**Ocean street, regulating and macadamizing.**

3,000 sq. yds. Telford macadam.

1,800 sq. yds. gravel sidewalk.

Labor		\$2,069 59
Teaming		282 00
Gravel		391 50
Stone		2,680 00
Roller		210 00
34,864 granite paving-blocks		967 47
Edgestone, 2,448 ft.		1,438 12
Sundries		31 25
Amount paid for work done by Sewer Division: Building 2 new catch-basins		218 26
Amount paid for paving to C. J. Coates:		
988 sq. yds. block paving laid, at 72 cts.	\$654 49	
2,704 ft. edgestone set, at 33 cts.	892 32	
530 cu. yds. earth excavated, at 50 cts.	265 00	
		1,811 81

\$10,100 00**Oneida street, paving and regulating.**

Labor		\$1,035 04
Teaming		207 00
Gravel		235 91
113.1 lin. feet edgestone		67 86
21,070 paving-brick		263 37
300 paving-blocks		12 90

Amount paid for paving to H. Gore &amp; Co.:

1,020 lin. feet edgestone set, at 15 cts.	\$153 00	
1,070 sq. yds. block-paving laid (tar joints), at \$1.22	1,305 40	
29 sq. yds. block paving laid, at 55 cts.	15 95	
476 sq. yds. brick paving laid, at 43 cts.	204 68	
		1,679 03

\$3,501 11

Amount of special appropriation . . . . . 3,300 00

Amount paid out of Paving Division appropriation . . . . . \$201 11**Oswego street, paving and regulating with brick.**

Labor		\$1,117 53
Teaming		6 00
172 feet edgestone		96 32
Sundries		26 16

Amount paid for paving to H. Gore &amp; Co.:

1,021.8 lin. feet edgestone set, at 15 cts.	\$153 27	
22.1 sq. yds. cross-walks laid, at 55 cts.	12 16	
1,025.7 sq. yds. brick paving laid on edge, at \$2.40	2,461 68	
518.8 sq. yds. brick paving laid, at 43 cts.	223 08	
		2,850 19

\$4,096 20

Amount of special appropriation . . . . . 3,668 67

Amount retained from H. Gore & Co. under the terms of  
the contract . . . . . \$427 53

**Park street, macadamizing.**

950 sq. yds. 6-in. macadam.	
Labor . . . . .	\$1,371 74
Teaming . . . . .	96 00
Roller . . . . .	112 00
Stone . . . . .	443 12
Sundries . . . . .	11 35

Amount paid for paving to Wm. McEleney:

89.8 lin. feet edgestone set, at 8 cts. . . . .	\$7 18
233.7 sq. yds. block paving laid, at 25 cts. . . . .	58 43
86.7 sq. yds. brick paving laid, at 18 cts. . . . .	15 61
	<hr/>
	81 22

\$2,115 43

**Parker street, paving, edgestones, and macadamizing.**

4,200 sq. yds. 12-in. macadam.	
Labor . . . . .	\$3,718 70
Teaming . . . . .	2,619 00
Gravel . . . . .	4,386 20
Roller . . . . .	210 00
Sand . . . . .	176 00
Stone . . . . .	3,405 82
186,453 granite paving-blocks . . . . .	13,999 73
2,000 paving-brick . . . . .	24 00
863.4 feet flagging . . . . .	928 63
3,442 feet edgestone and 24 corners . . . . .	2,284 19
Sundries . . . . .	66 51

Amount paid for excavating to Wm. T. Davis:

780 cu. yds. earth excavated, at 85 cts. . . . .	663 00
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Amount paid for excavating to E. A. Janse:

2,060 cu. yds. earth excavated, at 72 cts. . . . .	\$1,483 20
468 sq. yds. paving removed, at 25 cts. . . . .	114 50
	<hr/>
	1,597 70

Amount paid for paving to A. A. Libby & Co.:

4,046 lin. feet edgestone set, at 8 cts. . . . .	\$323 68
654 lin. feet edgestone set, at 18 cts. . . . .	117 72
208.5 lin. feet edgestone set, at 20 cts. . . . .	41 70
6,634.5 sq. yds. block paving laid, at 25 cts. . . . .	1,658 63
395.7 sq. yds. block paving laid, at 35 cts. . . . .	138 50
64.9 sq. yds. block paving laid, at 50 cts. . . . .	32 45
122.6 sq. yds. brick paving laid, at 18 cts. . . . .	22 07
609 sq. yds. brick paving laid, at 28 cts. . . . .	159 72
226 sq. yds. brick paving laid, at 35 cts. . . . .	79 10
20 sq. yds. brick paving laid, at 50 cts. . . . .	10 00
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	2,583 57

\$36,663 05

Amount paid for work done by Sewer Division: Building 18 new catch-basins and 170 feet retaining-wall . . . . .	2,820 43
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\$39,483 48

Amount of special appropriation . . . . .	35,000 00
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Amount paid out of Paving Division appropriation . . . . .	<u>\$4,483 48</u>
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**Parker street, Huntington avenue to Westland avenue.**

Building iron fence . . . . .	\$420 00
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**Parkman street, Ward 9, paving.**

Labor . . . . .	\$210 03
Teaming . . . . .	144 00
Stone . . . . .	243 77
	<hr/>
	\$597 80
Amount of special appropriation . . . . .	453 80
	<hr/>
Amount paid out of Paving Division appropriation . . . . .	<u>\$144 00</u>

**Paul street, paving.**

Labor . . . . .	\$119 27
Teaming . . . . .	6 00
Amount paid for paving to E. McLaughlin:	
249.3 lin. ft. edgestone set, at 15 cts. . . . .	37 40
Amount paid for paving to H. Gore & Co.:	
249.3 lin. ft. edgestone set, at 18 cts. . . . .	\$44 87
216.6 sq. yds. brick paving, laid on edge, at \$2.75 . . . . .	595 65
95.8 sq. yds. brick paving laid . . . . .	41 19
	<hr/>
	681 71
	<hr/>
	<u>\$844 38</u>

**Pemberton square, macadamizing and regulating.**

850 sq. yds. 12-in. macadam.

Labor . . . . .	\$696 22
Gravel . . . . .	28 40
353 granite paving-blocks . . . . .	255 70
Stone . . . . .	680 00
100 ft. flagging . . . . .	120 00
Rolling . . . . .	229 50
Sundries . . . . .	12 00
Amount paid for paving to Wm. McEleney:	
218 lin. ft. edgestone set, at 8 cts. . . . .	\$17 44
561 sq. yds. block paving laid, at 25 cts. . . . .	140 25
57 sq. yds. brick paving laid, at 18 cts. . . . .	10 26
	<hr/>
	167 95
	<hr/>
	\$2,189 77

Amount of special appropriation . . . . . 1,584 57

Amount paid out of Paving Division appropriation . . . . . \$605 20**Preble street, Dorchester avenue to Vinton street, macadamizing, sewers, etc.**

Labor . . . . .	\$699 53
Teaming . . . . .	372 00
Hill gravel . . . . .	230 68
Stone . . . . .	600 00
Beach gravel . . . . .	9 94
Roller . . . . .	72 00
Sand . . . . .	14 00
Filling . . . . .	32 25
1,183 ft. edgestone and 13 corners . . . . .	859 41

*Amount carried forward,*\$2,889 81



<i>Amount brought forward,</i>	\$2,839 81
Amount paid for paving to Roger Devlin:	
1,244 lin. ft. edgestone set, at 18 cts.	\$223 92
97.7 lin. ft. edgestone set, at 8 cts.	7 82
407.9 sq. yds. block paving laid, at 35 cts.	142 76
65.3 sq. yds. block paving laid, at 25 cts.	16 32
197.4 sq. yds. brick paving laid, at 28 cts.	55 27
53.8 sq. yds. brick paving laid, at 18 cts.	9 68
	<hr/> 455 77
	<hr/> \$3,345 58
Amount paid for work done by Sewer Division: Building 5 new catch-basins and 840.36 ft. 10-in. sewer-pipe	2,454 42
Amount of special appropriation	<hr/> \$5,800 00
<b>Prentiss street, paving.</b>	
Labor	\$323 84
Teaming	366 00
Gravel	445 21
62 feet flagging	65 10
30,702 granite paving-blocks	2,252 74
Amount paid for excavating to E. A. Janse:	
312 sq. yds. gutters removed, at 15 cts.	\$46 80
279 cu. yds. material excavated, at 60 cts.	167 40
	<hr/> 214 20
Amount paid for paving to J. Doherty & Co.:	
713 lin. feet edgestone set, at 8 cts.	\$57 04
1,020 sq. yds. block paving laid, at 25 cts.	255 00
116 sq. yds. brick paving laid, at 18 cts.	20 88
	<hr/> 332 92
	<hr/> \$4,000 00
<b>Prospect avenue, grading and gravelling.</b>	
Labor	\$223 20
Teaming	72 00
Gravel	177 80
	<hr/> \$533 00
Amount of special appropriation	500 00
Amount paid out of Paving Division appropriation	<hr/> \$33 00
<b>Q street, flagging crossing.</b>	
Labor	\$191 89
Gravel	18 96
180 feet flagging	189 00
	<hr/> \$399 85
<b>Resurfacing streets, Wards 17 and 18.</b>	
Labor	\$751 19
Teaming	304 50
Crushed stone	317 21
Amount paid for paving done on W. Newton street, to Metro- politan Construction Company	4,217 64
Amount paid for asphaltting on Columbus avenue, to Barber Asphalt Paving Company	186 77
	<hr/> \$5,777 31

**Richmond street, paving.**

Labor . . . . .	\$437 76
Teaming . . . . .	498 00
Gravel . . . . .	85 41
Sand . . . . .	45 00
79 feet flagging . . . . .	94 80
8,550 granite paving-blocks . . . . .	619 52

Amount paid for paving to J. Grant &amp; Co.:

400 lin. feet edgestone set, at 8 cts. . . . .	\$32 00
1,038 sq. yds. block paving laid, at 25 cts. . . . .	259 50
243 sq. yds. brick paving laid, at 18 cts. . . . .	43 74
	<hr/>
	335 24

\$2,115 73

Amount of special appropriation . . . . . 1,400 00

Amount paid out of Paving Division appropriation . . . . . \$715 73**Rochester street, paving.**

Labor . . . . .	\$526 30
22½ ft. edgestone . . . . .	12 64
38 ft. flagging . . . . .	39 90
Sundries . . . . .	13 75

Amount paid for paving to J. McCarthy:

436 sq. yds. block paving excavated, at 23¼ cts., . . . . .	\$102 46
303 cu. yds. earth excavated, at 95¼ cts. . . . .	289 37
3 days' teaming . . . . .	18 00
	<hr/>
	409 83

Amount paid for paving to Metropolitan Construction Co.:

996.1 lin. feet edgestone set, at 15 cts. . . . .	\$149 42
20.2 sq. yds. cross-walks laid, at 55 cts. . . . .	11 11
462.9 sq. yds. brick paving laid, at 43 cts. . . . .	199 05
1,095.4 sq. yds. asphalt block paving laid, at \$2.85 . . . . .	3,121 89
Extra work done, as ordered . . . . .	50 60
	<hr/>
	3,532 07
	<hr/>
	\$4,534 49

Amount paid for work done by Sewer Division: Repairing  
2 catch-basins . . . . .

2 75

\$4,537 24

Amount of special appropriation . . . . . 4,360 64

Amount paid out of Paving Division appropriation . . . . . \$176 60**Rogers street, Dorchester street to Preble street, asphaltting.**

Gravel . . . . .	\$14 22
900 paving brick . . . . .	10 80
Sundries . . . . .	8 67

Amount paid for paving to Payson &amp; Co.:

650 lin. ft. edgestone set, at 15 cts. . . . .	\$97 50
112.2 sq. yds. block paving laid, at 35 cts. . . . .	39 26
175.8 sq. yds. brick paving laid, at 28 cts. . . . .	49 22
	<hr/>
	185 98

Amount carried forward,

\$219 67

<i>Amount brought forward,</i>	\$219 67
Amount paid for asphalt to Barber Asphalt Paving Co.:	
464.3 sq. yds. asphalt laid, at \$2.25 . . . . .	\$1,044 68
2.1 sq. yds. block paving laid, at 25 cts. . . . .	53
	<hr/> 1,045 21
	\$1,264 88
Amount of special appropriation . . . . .	<hr/> 1,000 00
Amount paid out of Paving Division appropriation . . . . .	<hr/> \$264 88
<b>Rutherford avenue, macadamizing.</b>	
Labor . . . . .	<hr/> \$100 00
<b>Rutherford avenue, paving.</b>	
Labor . . . . .	\$906 20
Teaming . . . . .	294 00
Gravel . . . . .	600 27
110.5 feet edgestone . . . . .	77 35
57,423 granite paving-blocks . . . . .	4,478 99
Amount paid for excavating to S. & R. J. Lombard:	
121 sq. yds. gutters removed, at 19 cts. . . . .	\$22 99
350 cu. yds. earth excavated, at 98 cts. . . . .	343 00
	<hr/> 365 99
Amount paid for paving to P. Brennan & Co.:	
461 1 lin. ft. edgestone set, at 8 cts. . . . .	\$36 89
1,243.2 sq. yds. block paving laid, at 25 cts. . . . .	310 80
	<hr/> 347 69
Amount paid for paving to J. Turner & Co.:	
295 lin. ft. edgestone set, at 8 cts. . . . .	\$23 60
627.3 sq. yds. block paving laid, at 25 cts. . . . .	156 83
	<hr/> 180 43
	<hr/> \$7,250 92
Amount paid for work done by Sewer Division: Building	
3 new catch-basins and repairing 1 catch-basin . . . . .	590 58
	<hr/> \$7,841 50
<b>Rutland square, repairs.</b>	
Labor . . . . .	\$73 60
Teaming . . . . .	40 50
	<hr/> \$114 10
<b>Salem street, Charlestown, regulating and macadamizing.</b>	
730 sq. yds. 6-in. macadam.	
Labor . . . . .	\$388 34
Teaming . . . . .	184 50
Gravel . . . . .	51 13
Roller . . . . .	60 00
Crushed stone . . . . .	298 79
1,500 paving-brick . . . . .	17 25
	<hr/> Amount of special appropriation . . . . . \$1,000 00

**Savin Hill avenue, paving.**

Labor . . . . .	\$593 47
Teaming . . . . .	289 50
Gravel . . . . .	526 50
Sand . . . . .	25 20
38,155 granite paving-blocks . . . . .	1,980 34
2,500 paving-brick . . . . .	30 00
Sundries . . . . .	3 20

Amount paid for paving to C. J. Coates:	
697 lin. ft. edgestone set, at 8 cts. . . . .	\$55 76
1,041 sq. yds. block paving laid, at 25 cts. . . . .	260 25
347 sq. yds. brick paving laid, at 18 cts. . . . .	62 46
	<hr/>
	378 47

Amount of special appropriation . . . . .	\$3,826 68
	3,500 00

Amount paid out of Paving Division appropriation . . . . .	<u>\$326 68</u>
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**Scotia, Cambria, and Bothnia streets, macadamizing.**

3,000 sq. yds. 12-in. macadam.	
Labor . . . . .	\$3,903 88
Teaming . . . . .	874 50
Gravel . . . . .	254 40
Sand . . . . .	146 20
Stone . . . . .	2,400 00
Roller . . . . .	210 00
1,271 ft. edgestone . . . . .	740 72
16,500 paving-brick . . . . .	272 25
Sundries . . . . .	31 23

Amount paid for paving to J. Doherty & Co.:	
1,967.4 lin ft. edgestone set, at 8 cts. . . . .	\$157 40
508 lin. ft. edgestone set, at 18 cts. . . . .	91 44
1,069.5 sq. yds. block paving laid, at 25 cts. . . . .	267 39
175.6 sq. yds. block paving laid, at 35 cts. . . . .	61 46
717.3 sq. yds. brick paving laid, at 18 cts. . . . .	129 12
684 sq. yds. brick paving laid, at 28 cts. . . . .	191 52
	<hr/>
	898 33

Amount paid for work done by Sewer Division: Building 3 new catch-basins, repairing 2 manholes, and building 85 ft. 12-in. sewer . . . . .	<hr/>
	638 15

Amount of special appropriation . . . . .	\$10,369 66
	10,000 00

Amount paid out of Paving Division appropriation . . . . .	<u>\$369 66</u>
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**Second street, grading, etc.**

1,000 sq. yds. 6-in. macadam.	
Labor . . . . .	\$399 65
Teaming . . . . .	130 50
Gravel . . . . .	33 21
Roller . . . . .	60 00
Crushed stone . . . . .	411 00

\$1,034 36

**Second street, K to M, macadamizing.**

1,000 sq. yds. 3-in. macadam.

Labor . . . . .	\$310 90
Teaming . . . . .	124 50
Roller . . . . .	60 00
Gravel . . . . .	187 73
Crushed stone . . . . .	234 25
411½ ft. edgestone . . . . .	267 94

Amount paid for paving to H. Gore &amp; Co.:

498.3 lin. ft. edgestone set, at 8 cts. . . . .	\$39 86
168.3 sq. yds. block paving laid, at 25 cts. . . . .	42 08
	<hr/>
	81 94

\$1,287 26

Amount paid for work done by Sewer Division: Building  
1 new catch-basin . . . . .

134 95

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\$1,422 21

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**Second street, E street to Dorchester street, repaving.**

Labor . . . . .	\$952 20
784.8 ft. flagging . . . . .	824 04
62,039 paving-brick . . . . .	775 49
125,025 granite paving-blocks . . . . .	9,083 78
Wharfage on paving-blocks . . . . .	317 24
Sundries . . . . .	66 91

Amount paid for paving as per contract with J. Doherty  
& Co.:

5,022 sq. yds. block paving laid, at \$1.25 . . . . .	\$6,277 50
2,651 lin. ft. edgestone set, at 23 cts. . . . .	609 73
2,128 sq. yds. brick paving laid, at 78 cts. . . . .	1,659 84
172 sq. yds. cross-walks laid, at \$1.00 . . . . .	172 00
Extra work, as ordered . . . . .	350 20
	<hr/>
	9,069 27

\$21,088 93

Amount charged to L street for filling . . . . .

249 50

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\$20,839 43

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Amount paid for work done by Sewer Division: Building  
2 new catch-basins . . . . .

404 56

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\$21,243 99

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Amount of special appropriation . . . . .

20,000 00

Amount paid out of Paving Division appropriation . . . . .  

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\$1,243 99

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**Second street, easterly from Granite street, repaving, and Third street, A street to Second street, repaving.**

Labor . . . . .	\$867 53
78,791 granite paving-blocks . . . . .	7,654 59
Wharfage on paving-blocks . . . . .	390 00
38,104 paving-brick . . . . .	476 31
516 feet flagging . . . . .	541 88
134 feet edgestone and 12 corners . . . . .	127 74
Sundries . . . . .	40 60

*Amount carried forward,*

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\$10,098 65

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<i>Amount brought forward,</i>	\$10,098 65
Amount paid for paving, as per contract with Collins & Ham:	
3,899 sq. yds. block paving laid, at \$1.17 . . .	\$4,561 83
1,906 lin. feet edgestone set, at 33 cts. . .	628 98
1,518 sq. yds. brick paving laid, at 91 cts. . .	1,381 38
122 sq. yds. cross-walks laid, at \$1.35 . . .	164 70
Extra work, as ordered . . . . .	245 20
	<hr/>
	6,982 09
	<hr/>
Amount retained from Collins & Ham . . . . .	\$17,080 74
	25 00
	<hr/>
Amount of special appropriation for Second street . . .	\$17,055 74
	15,000 00
	<hr/>
Amount of special appropriation for Third street . . .	\$2,055 74
	2,000 00
	<hr/>
Amount paid out of Paving Division appropriation . . .	\$55 74
	<hr/>

**Seneca street, paving (brick).**

Labor . . . . .	\$514 79
Teaming . . . . .	37 50
21 feet of edgestone . . . . .	11 81
29.4 feet flagging . . . . .	30 87
9,800 paving-brick . . . . .	122 50
Sundries . . . . .	57 95

Amount paid for paving, as per contract with H. Gore & Co.:

816.4 sq. yds. keramite paving laid, at \$2.75 . . .	\$2,245 10
1,008.5 lin. feet edgestone set, at 15 cts. . .	151 28
19.2 sq. yds. block paving laid, at 55 cts. . .	10 56
14.6 sq. yds. round paving laid, at 55 cts. . .	8 03
459 9 sq. yds. brick paving laid, at 43 cts. . .	197 75
Extra work, as ordered . . . . .	29 32
	<hr/>
	2,642 04
	<hr/>
	\$3,417 46

Amount paid for work done by Sewer Division: Repairing 2 catch-basins and building 1 manhole . . . . .	78 47
	<hr/>
	\$3,495 93
Amount of special appropriation . . . . .	3,241 33
	<hr/>
Amount paid out of Paving Division appropriation . . .	\$254 60
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**Seventh street, D street towards B street, paving.**

Labor . . . . .	\$921 45
Teaming . . . . .	858 00
Hill gravel . . . . .	184 03
Beach gravel . . . . .	838 51
Sand . . . . .	119 01
50,563 granite paving-blocks . . . . .	3,663 97
Wharfage on paving-blocks . . . . .	119 50
9,000 paving-brick . . . . .	109 00

*Amount carried forward,*

\$6,813 47

<i>Amount brought forward.</i>		\$6,813 47
Amount paid for excavating to M. Donnellan:		
967.3 sq. yds. block paving removed, at 15½ cts. . . . .	\$149 94	
841 cu. yds. earth removed, at 9¼ cts. . . . .	794 75	
		944 69
Amount paid for paving to H. Gore & Co.:		
1,724.2 lin. feet edgestone set, at 8 cts. . . . .	\$137 94	
2,541.8 sq. yds. block paving laid, at 25 cts. . . . .	635 45	
439.4 sq. yds. block paving laid (tar joints), at 97 cts. . . . .	426 22	
1,592.2 sq. yds. brick paving laid, at 18 cts. . . . .	286 59	
		1,486 20
		<u>\$9,244 36</u>
Amount of special appropriation . . . . .		9,000 00
Amount paid out of Paving Division appropriation . . . . .	\$244 36	
<b>Shirley street, grading.</b>		
Labor . . . . .	\$113 78	
Crushed stone . . . . .	601 50	
Filling . . . . .	1,127 00	
Sundries . . . . .	41 98	
Amount paid for excavating to W. T. Davis:		
2,615 cu. yds., and labor excavating earth and delivering on Shirley street . . . . .		1,810 95
		<u>\$3,695 21</u>
Amount paid for work done by Sewer Division: Building 40 ft. stone culvert . . . . .		347 45
		<u>\$4,042 66</u>
<b>Short street, Charlestown.</b>		
400 sq. yds. 6-in. macadam.:		
Labor . . . . .	\$270 86	
Teaming . . . . .	159 00	
Crushed stone . . . . .	162 14	
Roller . . . . .	48 00	
Gravel . . . . .	60 00	
		<u>\$700 00</u>
<b>Short street, West Roxbury, grading.</b>		
Labor . . . . .	\$96 60	
<b>Silver street, A to D street, macadamizing.</b>		
Labor . . . . .	\$331 20	
Teaming . . . . .	279 00	
Gravel . . . . .	109 34	
4,300 paving-brick . . . . .	51 60	
Sundries . . . . .	8 07	
Amount paid for paving, to D. Sullivan:		
1,352.6 lin. ft. edgestone set, at 8 cts. . . . .	\$108 21	
442 7 sq yds. block paving laid, at 25 cts. . . . .	110 67	
514.3 sq. yds. brick paving laid, at 18 cts. . . . .	92 57	
		311 45
		<u>\$1,090 66</u>

**Sixth street, B and C street, paving.**

Labor . . . . .	\$442 46
Teaming . . . . .	337 50
Gravel . . . . .	341 51
Sand . . . . .	50 75
45 ft edgestone . . . . .	28 70
4,500 paving-brick . . . . .	51 75
18,000 granite paving-blocks . . . . .	1,313 10
Wharfage on paving-blocks . . . . .	35 00

Amount paid for excavating to M. Donnellan:

233.4 cu. yds. stone removed, at 19½ cts. . . . .	\$45 51	
241.6 cu. yds. earth excavating, at 95 cts. . . . .	229 52	
		275 03

Amount paid for paving to H. Gore &amp; Co.:

547.7 lin. ft. edgestones set, at 8 cts. . . . .	\$43 82	
815 sq. yds. block paving laid, at 25 cts. . . . .	203 75	
425.7 sq. yds. brick paving laid, at 18 cts. . . . .	76 63	
		324 20
		<u>\$3,200 00</u>

**Sixth street, H to I street, macadamizing.**

1,000 sq. yds. 6-in. macadam.	
Labor . . . . .	\$643 04
Teaming . . . . .	358 50
Roller . . . . .	70 00
Gravel . . . . .	146 10
167 ft. edgestone and 2 corners . . . . .	102 47
Crushed stone . . . . .	400 00
Sundries . . . . .	9 50

\$1,729 61

Amount of special appropriation . . . . .	1,621 54
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Amount paid out of Paving Division appropriation . . . . .	<u>\$108 07</u>
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**Smith street, extension and grading.**

Labor . . . . .	\$357 60
Teaming . . . . .	282 00
	<u>\$639 60</u>

**Soley street, macadamizing.**

800 sq. yds. 3-in. macadam.	
Labor . . . . .	\$237 20
Teaming . . . . .	195 00
Hill gravel . . . . .	82 50
Roller . . . . .	48 00
Beach gravel . . . . .	52 54
Crushed stone . . . . .	164 61
30½ ft. flagging . . . . .	30 50

\$810 35**Story street, grading.**

791.5 squares earth excavated, as per contract with M. Donnellan, at \$2.45 . . . . .	\$1,939 18
Teaming . . . . .	7 60

\$1,946 78



**Stoughton street, Harrison avenue to Albany street.**

2,000 sq. yds. 8-in. macadam. :

Labor . . . . .	\$962 94
Teaming . . . . .	216 00
Gravel . . . . .	173 76
Roller . . . . .	84 00
Sand . . . . .	8 10
Crushed stone . . . . .	1,007 00
405 granite paving-blocks . . . . .	29 58
812.8 ft. edgestone and 2 corners . . . . .	470 14
Amount paid for paving to Daniel Sullivan :	
1,844.6 lin. ft. edgestones set, at 8 cts. . . . .	\$107 56
637.7 sq. yds. block paving laid, at 25 cts. . . . .	159 42
244.3 sq. yds. brick paving laid, at 18 cts. . . . .	43 97
	<hr/>
	310 95

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\$3,262 47

Amount paid for work done by Sewer Division: Building

290 ft. 15-in. pipe sewer . . . . . 1,011 77

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\$4,274 24

Amount of special appropriation . . . . . 3,000 00

Amount paid out of Paving Division appropriation . . . . . \$1,274 24**Sun-Court street, asphalt.**

Labor . . . . .	\$266 90
Teaming . . . . .	63 00
Gravel . . . . .	28 40
2,000 paving-brick . . . . .	23 00
225.3 sq. yds. Barber asphalt pavement laid, at \$2.25 . . . . .	506 92

Amount paid for paving to P. Brennan :

809 lin. ft. edgestones set, at 8 cts. . . . .	\$64 72
1,462.7 sq. yds. block paving laid, at 25 cts. . . . .	365 67
387.3 sq. yds. brick paving laid, at 18 cts. . . . .	69 71
	<hr/>
	\$500 10

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\$1,388 32**Sycamore and Ridge streets, grading and constructing culverts.**

Labor . . . . .	\$942 82
Teaming . . . . .	516 00
Gravel . . . . .	312 90
Filling . . . . .	213 55

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\$1,985 27

Amount paid for work done by Sewer Division: Building

73 ft. stone culvert . . . . . 1,714 73

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\$3,700 00Amount of special appropriation . . . . . 3,700 00**Symmes street, grading and gravelling.**

Labor . . . . .	\$664 00
Teaming . . . . .	376 50
Gravel . . . . .	350 00

*Amount carried forward,*

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\$1,390 50

## STREET DEPARTMENT.

285

*Amount brought forward,* \$1,390 50  
 Amount of special appropriation . . . . . 1,000 00

Amount paid out of Paving Division appropriation . . . \$390 50

**Terrace place, East Boston, regulating.**

Labor . . . . . \$1,085 44  
 Teaming . . . . . 128 00  
 Gravel . . . . . 203 43

*Amount paid for paving to Roger Devlin.*

529.9 lin. ft. edgestone set, at 8 cts. . . . \$42 39  
 357.9 sq. yds. block paving laid, at 25 cts. . . 89 47  
 194.8 sq. yds. brick paving laid, at 18 cts. . . 35 06

166 92

\$1,583 79

Amount paid for work done by Sewer Division: Building  
 45.2 ft. 12-in. pipe sewer . . . . . 100 82

Amount of special appropriation . . . . . \$1,684 61  
 850 00

Amount paid out of Paving Division appropriation . . . \$834 61

**Terrace street, paving.**

Labor . . . . . \$1,660 11  
 Teaming . . . . . 30 00  
 227,007 granite paving-blocks . . . . . 10,896 33  
 53,376 paving-brick . . . . . 651 38  
 238 ft. flagging . . . . . 249 90  
 2,501 ft. edgestone and 17 corners . . . . . 1,706 91  
 Sundries . . . . . 92 98

*Amount paid for paving, as per contract with A. A. Libby & Co.:*

5,995 sq. yds. block paving laid, at \$1.05 . . \$6,294 75  
 3,778 lin. ft. edgestone set, at 32½ cts. . . 1,227 85  
 1,720 sq. yds. brick paving laid, at 75 cts. . . 1,290 00  
 113 sq. yds. cross-walks laid, at \$1.30 . . . 146 90  
 844 sq. yds. block paving (tar joints) . . . 607 68  
 Extra work as ordered . . . . . 584 48

10,151 66

\$25,439 27

Amount paid for work done by Sewer Division: Building  
 1 new catch-basin . . . . . 256 27

Amount retained from A. A. Libby & Co. . . . . \$25,695 54  
 477 20

Amount of special appropriation . . . . . \$25,218 34

**Texas street, regulating and constructing sewers.**

Labor . . . . . \$142 60  
 Teaming . . . . . 81 00  
 Sand . . . . . 22 40  
 Gravel . . . . . 112 00  
 314½ ft. edgestone and 7 corners . . . . . 250 28  
 3,934 granite paving-blocks . . . . . 282 68

*Amount carried forward,*

\$890 96

<i>Amount brought forward,</i>	\$890 96
Amount paid for paving to Jas. Doherty & Co.:	
346 lin. ft. edgestone set, at 8 cts.	\$27 68
130.5 sq. yds. block paving laid, at 25 cts.	32 63
87.5 sq. yds. brick paving laid, at 18 cts.	15 75
	<hr/>
	76 06
	<hr/>
	\$967 02
Amount paid for work done by Sewer Division: Building	
201.8 ft. 10-in. pipe sewer, including rebuilding of	
Stony-brook culvert.	\$1,032 98
	<hr/>
	\$2,000 00
Amount of special appropriation	2,000 00
	<hr/>
<b>Tremont street, Roxbury crossing to Parker street.</b>	
Labor	\$10 50
	<hr/>
<b>Third street, A to Second street. (See Second and Third streets.)</b>	
<b>Tremont street, Scollay square to Boylston street, paving.</b>	
Labor, including engineering and superintendence	\$3,350 13
Teaming	824 85
Gravel	8 76
55,100 paving-brick	661 20
3,108.5 ft. flagging	3,313 01
1,079 ft. edgestone and 4 corners	703 29
210,925 granite paving-blocks	15,490 80
Wharfage on paving-blocks	800 00
Sundries	148 12
Amount paid for paving, as per contract with H. Gore & Co.:	
6,992 sq. yds. block paving on concrete, at \$2.76	\$19,297 92
1,616 sq. yds. block paving on gravel, at \$1.19	1,923 04
2,117 lin. ft. edgestone set, at 39 cts.	825 63
2,037 sq. yds. brick paving laid, at 90 cts.	1,833 30
670 sq. yds. cross-walks laid, at \$2.74	1,835 80
Extra work, as ordered	946 11
	<hr/>
	26,661 80
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	\$51,961 96
Amount retained from H. Gore & Co.	150 00
	<hr/>
	\$51,811 96
Amount paid for work done by Sewer Division: Building	
7 new catch-basins and repairing 1 catch-basin	1,913 39
	<hr/>
	\$53,725 34
Amount of special appropriation	52,000 00
	<hr/>
Amount paid out of appropriation for Paving Division	\$1,725 34
	<hr/>
<b>Troy street, paving and regulating.</b>	
Labor	\$365 79
202.5 ft. flagging	212 63
143.8 ft. edgestone	80 45
	<hr/>
<i>Amount carried forward,</i>	\$658 87

## STREET DEPARTMENT.

287

<i>Amount brought forward,</i>	\$658 87
17,200 paving-brick . . . . .	210 40
49,064 granite paving-blocks . . . . .	3,141 51
Sundries . . . . .	72 29
Amount paid for paving as per contract with Jas. Grant & Co.:	
1,952 sq. yds. block paving laid, at \$1.52 . . . . .	\$2,967 04
1,009 lin. ft. edgestone set, at 35 cts. . . . .	353 15
627.5 sq. yds. brick paving laid, at \$1.32 . . . . .	828 30
72.5 sq. yds. cross-walks laid, at \$1.98 . . . . .	143 55
Extra work as ordered . . . . .	87 40
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	4,379 44
	<hr/>
Amount paid for work done by Sewer Division: Repairing 8 catch-basins and 2 manholes . . . . .	\$8,462 51
	66 86
	<hr/>
Amount of special appropriation . . . . .	\$8,529 37
	8,100 00
	<hr/>
Amount paid out of Paving Division appropriation . . . . .	\$429 37
	<hr/>
<b>Village street, paving.</b>	
Labor . . . . .	\$665 12
Teaming . . . . .	222 00
Gravel . . . . .	193 01
Amount paid for paving to D. Sullivan:	
642 lin. ft. edgestone set, at 18 cts. . . . .	\$115 56
320 sq. yds. brick paving laid, at 28 cts. . . . .	89 60
943 sq. yds. block paving laid (tar joints), at 97 cts. . . . .	914 71
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	1,119 87
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	\$2,200 00
Amount of special appropriation . . . . .	2,200 00
	<hr/>
<b>Waltham street, Shawmut avenue to Tremont street.</b>	
1,300 sq. yds. 4-in. macadam.	
Labor . . . . .	\$243 60
Teaming . . . . .	259 50
Roller . . . . .	60 00
Gravel . . . . .	125 56
Sand . . . . .	18 00
Stone . . . . .	361 00
255 granite paving-blocks . . . . .	18 62
5,100 paving-brick . . . . .	63 75
Amount paid for paving to D. Sullivan:	
1,121 lin. ft. edgestone set, at 8 cts. . . . .	\$89 68
551.5 sq. yds. block paving laid, at 25 cts. . . . .	138 12
823 sq. yds. brick paving laid, at 18 cts. . . . .	148 14
	<hr/>
	375 94
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Amount of special appropriation . . . . .	\$1,525 97
	500 00
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Amount paid out of Paving Division appropriation . . . . .	\$1,025 97
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**Ward street, Dorchester avenue to Preble street, resurfacing.**

700 sq. yds. 3-in. macadam.

Labor . . . . .	\$249 20
Teaming . . . . .	217 50
Roller . . . . .	30 00
Gravel . . . . .	64 12
Stone . . . . .	132 02
160.8 ft. edgestone . . . . .	93 23
950 paving-brick . . . . .	11 65

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\$797 72

Amount of special appropriation . . . . . 675 72

Amount paid out of Paving Division appropriation . . . \$122 00**Warren avenue, repairs.**

Labor . . . . .	\$179 40
Teaming . . . . .	75 00

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\$254 40**Warren street, paving.**

1,500 sq. yds. block-stone paving done by the city ; balance laid, as per contract, with A. A. Libby &amp; Co.

Labor . . . . .	\$2,444 95
Teaming . . . . .	1,066 50
Gravel . . . . .	1,864 80
Sand . . . . .	99 20
4,000 paving-brick . . . . .	50 00
134,948 granite paving-blocks . . . . .	9,696 60
319 ft. edgestone and 2 corners . . . . .	230 80
Sundries . . . . .	33 71

Amount paid for excavating to J. McCarthy :

1,076 sq. yds. paving carted away, at 23½ cts. . .	\$252 86
801 cu. yds. material excavated, at 59½ cts. . .	476 60
7 cu. yds. stone carted away, at \$1.00 . . .	7 00
	<hr/> 736 46

Amount paid for paving to A. A. Libby :

595.4 lin. ft. edgestone set, at 20 cts. . .	\$119 08
462.3 sq. yds. block paving laid, at 75 cts. . .	346 73
199.7 sq. yds. block paving laid, at 50 cts. . .	100 10
465.1 sq. yds. brick paving laid, at 35 cts. . .	162 80
	<hr/> 728 71

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\$16,951 73

Amount paid for work done by Sewer Division: Building

1 new catch-basin . . . . . 130 02

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\$17,081 75**Warrenton street, asphaltting from Washington street.**

Labor . . . . .	\$712 43
Teaming . . . . .	96 00
Gravel . . . . .	4 38
11,525 paving-brick . . . . .	156 56
115.1 ft. edgestone and 4 corners . . . . .	78 54

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Amount carried forward,

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\$1,047 91

*Amount brought forward.*

\$1,047 91

## Amount paid for paving to J. Turner &amp; Co.:

1,613 lin. ft. edgestone set, at 15 cts.	\$241 95
432.2 sq. yds. block paving laid, at 60 cts.	259 32
830.2 sq. yds. brick paving laid, at 40 cts.	332 07

833 34

## Amount paid for asphaltting to Barber Asphalt Paving Co.:

969.6 sq. yds. asphalt laid, at \$3.25	\$3,151 20
916 sq. yds. asphalt laid, at \$2	1,832 00
65.5 sq. yds. asphalt laid, at \$2.50	163 75
26.7 sq. yds. cross-walks laid, at \$1.05	28 04

5,174 99

\$7,056 24

Amount of special appropriation . . . . . 6,871 64

Amount paid out of Paving Division appropriation . . . \$184 60

\$250.56 retained from Barber Asphalt Paving Co.

**Washburn street, Dorchester avenue to Boston street, regulating and macadamizing.**

1,000 sq. yds. 12-in. macadam.

Labor	\$1,017 12
Teaming	369 00
Stone	805 60
Filling	442 25
Gravel	204 26
Sand	6 00
Rolling	49 00
1,055 ft. edgestone	770 15
Sundries	15 90

## Amount paid for paving to D. Sullivan:

1,055 lin. ft. edgestone set, at 8 cts.	\$84 40
407.9 sq. yds. block paving laid	101 97

186 37

22.6 sq. yds. brick paving laid, at 28 cts. . . . . 6 33

\$3,871 98

Amount paid for work done by Sewer Division: Building  
2 new catch-basins . . . . .

216 83

\$4,088 81

Amount of special appropriations . . . . . 3,043 89

Amount paid out of Paving Division appropriation . . . \$1,044 92

**Washington street, Charlestown, regulating and macadamizing.**

2,000 sq. yds. 6-in. macadam.

Labor	\$399 79
Teaming	345 00
Roller	120 00
Gravel	297 34
Stone	823 87
Sundries	14 00

\$2,000 00

Amount of special appropriation . . . . . 2,000 00

**Washington street, Dorchester, Hawes avenue to N. Y. & N. E.  
R.R., regulating.**

Labor . . . . .	\$128 80
12,729 granite gutter paving-blocks . . . . .	292 77
Sundries . . . . .	78 43
	<hr/>
	\$500 00
Amount of special appropriation . . . . .	<u>500 00</u>

**Washington street, South and Centre Streets, Ward 23.**

14,000 sq. yds. 12-in. macadam.	
Labor . . . . .	\$6,183 28
Teaming . . . . .	1,897 50
Roller . . . . .	200 00
Gravel . . . . .	1,392 10
Stone . . . . .	11,037 00
Rolling . . . . .	448 00
Sundries . . . . .	177 10
	<hr/>
	\$21,334 98
Amount of special appropriation . . . . .	<u>11,953 19</u>
Amount paid out of Paving Division appropriation . . . . .	<u>\$9,381 79</u>

**Water street, Charlestown, repaving.**

Labor . . . . .	\$370 30
Teaming . . . . .	108 00
Gravel . . . . .	36 92
531 granite paving-blocks . . . . .	25 48
	<hr/>
Amount of special appropriation . . . . .	<u>\$540 70</u>

**Watson street, regulating and macadamizing.**

925 sq. yds. 6-in. macadam.	
Labor . . . . .	\$495 50
Teaming . . . . .	30 00
Roller . . . . .	49 00
Crushed stone . . . . .	361 50
Gravel . . . . .	76 68
444 feet edgestone and 2 corners . . . . .	522 30
Amount paid for paving to J. Doherty & Co.:	
872 lin. feet edgestone set, at 8 cts. . . . .	\$69 76
266.9 sq. yds. block paving laid, at 25 cts. . . . .	66 73
151 sq. yds. brick paving laid, at 18 cts. . . . .	27 18
	<hr/>
	163 67
Amount of special appropriation . . . . .	<u>\$1,498 65</u>

**Waumbeck street, resurfacing.**

2,800 sq. yds. 12-in. macadam.	
Labor . . . . .	\$542 25
Teaming . . . . .	650 90
Gravel . . . . .	609 00
Roller . . . . .	140 00
Sand . . . . .	208 00
Crushed stone . . . . .	2,172 40
	<hr/>
Amount carried forward,	<u>\$4,322 55</u>

## STREET DEPARTMENT.

291

<i>Amount brought forward,</i>		\$1,322 55
1,216 feet edgestone and 4 corners . . . . .		748 47
5,000 paving-brick . . . . .		61 50
56 feet flagging . . . . .		58 80
Sundries . . . . .		13 50
<i>Amount paid for paving to A. A. Libby:</i>		
93.8 lin. feet edgestone set, at 20 cts . . . . .	\$18 76	
31.2 sq. yds. block paving laid, at 50 cts. . . . .	15 60	
		34 36
<i>Amount paid for paving to Payson &amp; Co.:</i>		
2,582.2 lin. feet edgestone set, at 8 cts. . . . .	\$206 57	
1,014.1 sq. yds. block paving laid, at 25 cts. . . . .	253 52	
1,221.9 sq. yds. brick paving laid, at 18 cts. . . . .	219 94	
		680 03
		<u>\$5,919 21</u>
Amount of special appropriation . . . . .		2,000 00
Amount paid out of Paving Division appropriation . . . . .		<u>\$3,919 21</u>
<b>Well street, paving.</b>		
Labor . . . . .		\$523 42
Teaming . . . . .		387 00
Gravel . . . . .		108 00
Sand . . . . .		18 00
185 feet edgestone . . . . .		111 00
98 feet flagging . . . . .		117 60
7,500 granite paving-blocks . . . . .		538 88
4,800 paving-brick . . . . .		58 00
Sundries . . . . .		29 40
<i>Amount paid for paving to J. Doherty &amp; Co.:</i>		
534.7 lin. feet edgestone set, at 8 cts. . . . .	\$42 78	
571.3 sq. yds. block paving laid, at 25 cts. . . . .	142 83	
199.1 sq. yds. brick paving laid, at 18 cts. . . . .	35 84	
		221 45
		<u>\$2,112 75</u>
Amount of special appropriation . . . . .		1,800 00
Amount paid out of Paving Division appropriation . . . . .		<u>\$312 75</u>
<b>Wendell street, paving.</b>		
Labor . . . . .		\$786 67
Teaming . . . . .		643 50
Gravel . . . . .		56 80
100 feet edgestone . . . . .		56 00
7,900 granite paving-blocks . . . . .		576 31
2,500 paving-brick . . . . .		28 75
<i>Amount paid for paving to Jas. Grant &amp; Co.:</i>		
352 lin. ft. edgestone set, at 8 cts. . . . .	\$28 16	
683 sq. yds. block paving laid, at 25 cts. . . . .	170 75	
162 sq. yds. brick paving laid, at 18 cts. . . . .	29 16	
		228 07
		<u>\$2,376 10</u>
Amount paid for work done by Sewer Division: Building		
1 new catch-basin . . . . .		143 96
		<u>\$2,520 06</u>
Amount of special appropriation . . . . .		<u>2,520 06</u>



**West Chester park and square, Columbus avenue to bridge.**

2,350 sq. yds. 6-in. macadam.

Labor . . . . .	\$1,181 60
Teaming . . . . .	858 00
Stone . . . . .	976 89
Roller . . . . .	70 00
Sundries . . . . .	75 13

**\$3,161 62**Amount of special appropriation . . . . . **2,568 02**Amount paid out of Paving Division appropriation . . . . . **\$593 60****West Dedham street, Shawmut avenue to Washington street, paving (tar joints).**

Labor . . . . .	\$565 27
Teaming . . . . .	117 00
Gravel . . . . .	260 80
Sand . . . . .	74 80
27,977 granite paving-blocks . . . . .	2,040 92
160.6 feet edgestone . . . . .	89 88

Amount paid for excavating to J. McCarthy:

301 cu. yds. earth excavated and carted away,  
at 95 cts. . . . . **\$285 95**284 sq. yds. round stone gutters removed, at 33  
cts. . . . . **95 14****381 09**

Amount paid for paving to A. A. Libby &amp; Co.:

564.8 lin. feet edgestone set, at 8 cts. . . . . **\$45 18**1,124.5 sq. yds. block paving laid, at 75 cts. . . . . **843 31**454.2 sq. yds. brick paving laid, at 18 cts. . . . . **81 75****970 24****\$4,500 00**Amount of special appropriation . . . . . **4,500 00****West Newton street, Tremont street to Columbus avenue, asphalt blocks.**

Labor . . . . .	\$677 38
Teaming . . . . .	178 50

Amount paid for excavating to John Casey:

831 sq. yds. paving carted away, at 27 cts. . . . . **\$224 37**785 cu. yds. material removed, at 65 cts. . . . . **510 25****734 62**Amount paid for paving, as per contract with Metropolitan  
Construction Co.:3,118 sq. yds. Hastings asphalt block, at \$3.10 **\$9,665 80**1,521 lin. feet edgestone set, at 15 cts. . . . . **228 15**7 sq. yds. block paving laid, at 55 cts. . . . . **3 85**1,190 sq. yds. brick paving laid, at 43 cts. . . . . **511 70****10,409 50****\$12,000 00**Amount of special appropriation . . . . . **12,000 00**

**West Newton street, Tremont street to Shawmut avenue, asphalt blocks.**

Labor . . . . .	\$634 20
Teaming . . . . .	75 00
Gravel . . . . .	5 68
Stone . . . . .	212 79

Amount paid for excavating to J. J. Sullivan:

763 sq. yds. round stone gutters removed, at 29 cts. . . . .	\$221 27
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709 cu. yds. macadam removed, at 75 cts. . . . .	531 75
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753 02

Amount paid for paving, as per contract with Metropolitan Construction Co.:

1,442.6 lin. feet edgestone set, at 15 cts. . . . .	\$216 39
41.9 sq. yds. cross-walks laid, at 55 cts. . . . .	23 04
1,119.7 sq. yds. brick paving laid, at 43 cts. . . . .	481 47
2,738.5 sq. yds. asphalt paving laid, at \$3.10 . . . . .	8,489 35

9,210 25

\$10,890 94

Amount paid out of resurfacing streets appropriation . . . . .	4,217 64
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\$6,673 30

Amount of special appropriation . . . . .	6,000 00
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Amount paid out of Paving Division appropriation . . . . .	\$673 30
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**West Second street, repairs.**

Labor . . . . .	\$135 49
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**Wharf street, paving.**

Labor . . . . .	\$495 63
Teaming . . . . .	250 50
Gravel . . . . .	21 30
100 feet edgestone . . . . .	56 00
4,000 paving-brick . . . . .	46 00
11,910 granite paving-blocks . . . . .	803 18

Amount paid for paving to D. N. Payson:

425 lin. feet edgestone set, at 8 cts. . . . .	\$34 00
478 sq. yds. block paving laid, at 25 cts. . . . .	119 50
194 sq. yds. brick paving laid, at 18 cts. . . . .	34 92

188 42

\$1,861 03

Amount of special appropriation . . . . .	1,861 03
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**NEW EDGESTONE.**

The following tables show the amount of new edgestone set during the past year:

**CITY PROPER.***(Districts 8, 9, 10, including a portion of Roxbury.)*

	Lin. ft.
Bay State road . . . . .	102
Belvidere street . . . . .	440
Beacon street . . . . .	111
Boylston street . . . . .	167
Cambria street . . . . .	612
Camden street . . . . .	1,403
Commonwealth avenue . . . . .	151

	Lin. ft.
Dalton and Dundee streets . . . . .	153
East Concord street . . . . .	657
East Newton street . . . . .	832
Exeter street . . . . .	426
Garrison street . . . . .	177
Huntington avenue . . . . .	485
Harcourt street . . . . .	169
Scotia street . . . . .	538
Stoughton street . . . . .	1,049
Watson street . . . . .	430
West Chester park . . . . .	139
Sundry streets in small quantities . . . . .	195

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8,236

## ROXBURY.

*(District No. 7, including a portion of Dorchester.)*

Albany street . . . . .	291
Bird street . . . . .	182
Blue Hill avenue . . . . .	688
Crawford street . . . . .	302
Centre street . . . . .	878
Cheney street . . . . .	356
Dunreath street . . . . .	126
Dunmore street . . . . .	392
Ellis and Fulda streets . . . . .	240
Elmore street . . . . .	472
Gaston street . . . . .	173
Hampshire street . . . . .	224
Harold street . . . . .	1,058
Highland street . . . . .	169
Haskins street . . . . .	1,380
Humboldt avenue . . . . .	2,100
Holborn street . . . . .	188
Homestead street . . . . .	247
Howland street . . . . .	426
Kensington street . . . . .	389
Kingsbury street . . . . .	199
Longwood avenue . . . . .	192
Magazine street . . . . .	113
Magnolia street . . . . .	1,487
Monroe street . . . . .	362
Parker street . . . . .	2,476
Rand street . . . . .	179
Ruthven street . . . . .	183
Shirley street . . . . .	511
Sterling street . . . . .	149
Terrace street . . . . .	1,713
Texas street . . . . .	350
Townsend street . . . . .	655
Tremont street . . . . .	160
Wigglesworth street . . . . .	223
Westminster avenue . . . . .	104
Walden street . . . . .	1,210
Waumbeck street . . . . .	1,009
Wabeno street . . . . .	118
Wayland street . . . . .	303
Sundry streets in small quantities . . . . .	714

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22,693

## SOUTH BOSTON.

*(District No. 1, including a portion of Dorchester.)*

	Lin. ft.
Boston street . . . . .	260
Dorset street . . . . .	1,614
East First street . . . . .	2,109
East Second street . . . . .	315
East Third street . . . . .	205
East Sixth street . . . . .	243
East Ninth street . . . . .	1,797
Gustin street . . . . .	536
Harvest street . . . . .	1,806
Monks street . . . . .	171
Preble street . . . . .	1,290
Washburn street . . . . .	1,027
Sundry streets in small quantities . . . . .	351

11,724

## EAST BOSTON.

*(District No. 2.)*

Bennington street . . . . .	1,216
Jeffries street . . . . .	1,297
Lamson street . . . . .	169
Marginal street . . . . .	535
Morris street . . . . .	565
Paris street . . . . .	100
Sundry streets . . . . .	249

4,131

## CHARLESTOWN.

*(District No. 3.)*

Caldwell street . . . . .	1,161
Dupont street . . . . .	236
Ellwood street . . . . .	351
Hill street . . . . .	479

2,227

## BRIGHTON.

*(District No. 4.)*

Ashford street . . . . .	211
Franklin street . . . . .	234
Mansfield street . . . . .	1,272
Pratt street . . . . .	315

2,032

## WEST ROXBURY.

*(District No. 5.)*

Childs street . . . . .	145
Centre street . . . . .	304
Danforth street . . . . .	857
Grove street . . . . .	123
Harris avenue . . . . .	105
Mozart street . . . . .	2,129
Paul Gore street . . . . .	468
Roys and Wise streets . . . . .	486

4,617

**DORCHESTER.***(District No. 6.)*

	Lin. ft.
Ashmont street . . . . .	1,682
Bushnell street . . . . .	1,514
Blue Hill avenue . . . . .	333
Belfort street . . . . .	118
Codman and Carruth streets . . . . .	480
Dracut street . . . . .	1,255
Hancock street and Cushing avenue . . . . .	313
Mill street . . . . .	114
Mount Everett street . . . . .	311
Minot street . . . . .	4,065
Neponset avenue . . . . .	2,891
Ocean street . . . . .	2,649
Roslin and Harley streets . . . . .	298
Stanley street . . . . .	152
Victoria street . . . . .	362
Washington street . . . . .	1,187
Sundry streets in small quantities . . . . .	414
	<hr/>
	18,138

**RECAPITULATION.**

City Proper . . . . .	8,236
Roxbury . . . . .	22,693
South Boston . . . . .	11,724
East Boston . . . . .	4,131
Charlestown . . . . .	2,227
West Roxbury . . . . .	4,617
Brighton . . . . .	2,032
Dorchester . . . . .	18,138
	<hr/>
	73,798

**NEW BRICK SIDEWALKS.**

The following tables show the number of square yards of new brick sidewalks laid during the past year:

**CITY PROPER.***(Districts Nos. 8, 9, and 10, including a portion of Roxbury.)*

	Sq. yds.
Bay State road . . . . .	130
Beacon street . . . . .	331
Belvidere, Scotia, and Bothnia streets . . . . .	428
Boylston street . . . . .	187
Dalton and Dundee streets . . . . .	109
East Concord and East Newton streets . . . . .	841
Harcourt street . . . . .	133
Huntington avenue . . . . .	973
St. Botolph street . . . . .	193
Troy street . . . . .	157
West Chester park . . . . .	285
Sundry streets in small quantities . . . . .	114
	<hr/>
	3,881

## ROXBURY.

*(District No. 7, including a portion of Dorchester.)*

	Sq. yds.
Bower street and Walnut avenue . . . . .	362
Blue Hill avenue . . . . .	574
Centre and Highland streets . . . . .	435
Crawford street . . . . .	812
Cottage street . . . . .	179
Dudley street . . . . .	226
Edgewood street . . . . .	185
Elmore street . . . . .	354
Gaston street . . . . .	145
Holborn street . . . . .	127
Humboldt avenue, Homestead and Harold streets . . . . .	1,031
Hampshire street . . . . .	144
Howard avenue and Hartford street . . . . .	192
Huntington avenue . . . . .	125
Kingsbury street . . . . .	143
Kensington street . . . . .	219
Mill street . . . . .	176
Munroe street . . . . .	121
Magnolia and Wayland streets . . . . .	350
Rand street . . . . .	280
Rockland avenue . . . . .	260
Ruthven street . . . . .	109
Shirley street . . . . .	258
Texas street . . . . .	572
Townsend street . . . . .	123
Tremont street . . . . .	308
Vernon street . . . . .	167
Warren street . . . . .	158
Waumbeck street . . . . .	351
Walden and Minden streets . . . . .	572
Sundry streets in small quantities . . . . .	540
	<hr/> 9,098

## SOUTH BOSTON.

*(District No. 1, including a portion of Dorchester.)*

Boston street . . . . .	365
Congress street . . . . .	125
Dorset street . . . . .	404
Dorchester avenue . . . . .	332
East Second street . . . . .	467
East Third street . . . . .	354
East Fourth street . . . . .	171
Harvest street . . . . .	191
M street . . . . .	100
Ninth street . . . . .	200
Preble street . . . . .	130
West Second street . . . . .	118
Sundry streets in small quantities . . . . .	671

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3,628

## EAST BOSTON.

*(District No. 2.)*

Bennington street . . . . .	518
Cottage street . . . . .	189
Jeffries street . . . . .	125

	Sq. yds.
Lamson street . . . . .	152
Morris street . . . . .	190
Marion street . . . . .	258
Moore street . . . . .	164
Paris street . . . . .	150
Putnam street . . . . .	167
West Eagle street . . . . .	108
Sundry streets in small quantities . . . . .	155

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 2,176

## CHARLESTOWN.

(District No. 3.)

Sundry streets in small quantities . . . . .	120
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## BRIGHTON.

(District No. 4.)

Western avenue . . . . .	186
Sundry streets . . . . .	191

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 377

## WEST ROXBURY.

(District No. 5.)

Burroughs street . . . . .	525
Centre street . . . . .	176
Sundry streets in small quantities . . . . .	266

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 967

## DORCHESTER.

(District No. 6.)

Codman and Carruth streets . . . . .	318
Cushing avenue and Hancock street . . . . .	404
Dorchester avenue and Thornley street . . . . .	148
Stanley street . . . . .	250
Washington street . . . . .	258
Sundry streets in small quantities . . . . .	100

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 1,478

## RECAPITULATION.

City Proper . . . . .	3,881
Roxbury . . . . .	9,098
South Boston . . . . .	3,628
East Boston . . . . .	2,176
Charlestown . . . . .	120
Brighton . . . . .	377
West Roxbury . . . . .	967
Dorchester . . . . .	1,478

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 21,725

PROPERTY IN CHARGE OF THE DEPUTY SUPERINTENDENT OF PAVING DIVISION.

Buildings and wharf on Albany street, opposite Sharon street. The building is of brick and wood and covers some 8,000 square feet of land, and is divided into a shed for breaking stone for macadamizing,

blacksmith's and carpenter's shops, tool-room, and stable. The total contents of the lot, including wharf and building, are 63,180 square feet.

Fort Hill Wharf, containing 21,054 square feet, placed in charge of the Paving Department May 18, 1874, to be used for the landing and storage of paving-blocks and gravel until such time as said wharf shall be wanted for the extension of Oliver street. A part of this wharf is occupied by a tenant-at-will, at \$500 per annum, part by Sanitary Division.

Lot on Chelsea, Marion, and Paris streets East Boston, containing 45,550 square feet. Part of this lot used by the Sewer Division.

Ledge lot on Washington street, corner Dimock street, Roxbury, containing 134,671 square feet. Upon this lot are buildings containing a steam-engine and stone-crusher.

Highland-street Stable lot. Upon this lot is a large brick stable erected in 1873, and occupied by the Sanitary and Paving Divisions; also a brick building used as a blacksmith's shop, and a shed for the storage of tools, etc.

Ledge lot, on Codman street, Dorchester, containing 299,000 square feet, was purchased in 1870. Upon this lot is a shed containing a steam-engine and stone-crusher, also a stable and tool-house.

On the Almshouse lot, Hancock street, Dorchester, there are two stables, also a shed and tool-house.

Ledge lot, on Magnolia street and Bird place, Dorchester, containing 81,068 square feet. This lot was purchased by the town of Dorchester in 1867. Upon this lot are a blacksmith's shop and large shed.

Downer-avenue lot, Dorchester, containing 35,800 square feet.

*West Roxbury.*—On Child street, a lot of land containing 14,457 square feet, upon which are a stable and shed, blacksmith's shop and tool-house.

*Gravel lots.*—On the corner of Forest Hills avenue and Norfolk street, a lot containing 47,798 square feet, purchased by the town of Dorchester, in town of Milton, on Brush Hill road, containing 64,523 square feet, hired by the town of Dorchester for nine hundred and ninety-nine years. Morton street, Ward 23, containing about one-third of an acre, purchased by town of West Roxbury in 1890, used for storage purposes. Tenen street, purchased for \$21,360 in 1874.

Ledge and gravel lot, rear of Union street, containing about 37,000 square feet, purchased by the town of Brighton. This lot is at present leased.

Gravel and stones on lot on Market street, Ward 25, purchased by town of Brighton.

On Rockland street, Ward 25, adjacent to engine-house, a brick building, containing a shed and tool-house.

Ledge lot, on Chestnut-hill avenue, Brighton, containing about 13 acres, upon which is an office, engine-house, stable, and crusher plant.

On Medford street, Charlestown, a wharf lot, foot of Elm street, containing 8,000 feet, upon which are sheds, office, stable, etc.

Property belonging to the Paving Division, consisting of 90 horses, 65 carts, 16 water-carts, 13 wagons, 6 steam-rollers, 8 stone-crushers, and 6 engines.

In South Boston, corner of H and Ninth streets, a lot of land containing about 12,000 square feet, upon which have been erected a stable, carriage-house, shed, tool-house, and office. Rent of same, including use of wharf and flats opposite, \$650 per annum, with taxes.

On Hereford street, a yard with shed, tool-house, and office.

Wharf, known as Atkins' Wharf, 521 Commercial street, purchased in 1887 for \$24,000, containing 22,553 square feet, having on it an office and stable.



## Tools, Horses, Carts, etc.

DISTRICT.	1	2	3	4	5	6	7	8	9	10	Total.
Axes . . . . .	2	3		7	7	4	8	7	2	2	37
Blocks and ropes, sets . . . . .	1	1	1	1	1	2	2	2		2	13
Buggies . . . . .	1	1		2	3	1	1	2			11
Blankets, horse . . . . .	6	2	12	23	28	23	11	11	3	10	129
Crowbars . . . . .	55	15	35	15	26	20	43	60	22	75	368
Clawbars . . . . .					5	1	1	1		1	9
Cesspool rods . . . . .		2	2		6		8	13	4		35
Crushers . . . . .				1	1	2	4				8
Carts, single . . . . .	3		6	5	5	12	8	10	2	4	55
" double . . . . .				4	3	3					10
" water . . . . .	3	1	1	3	2	2	2		1	1	16
Chains, draft . . . . .	1				11	10		16			37
" blasting . . . . .				4	6	4	20				34
Chisels, ice . . . . .	2		6				1	2	23	6	49
Derricks . . . . .					1	1	2	2			6
Drills . . . . .	11	7		150	133	233	430			12	976
Drill, steam . . . . .				2	2	3	9				16
Drag-wheel, pair . . . . .	1	1	1	1	1	2	1	1			9
Drags, stone . . . . .					2			1			3
Engines . . . . .				1	1	2	2				6
Grindstones . . . . .				2	1	1	1	1	1		7
Goosenecks . . . . .		1						1	1	2	5
Hammers, orack . . . . .	50	36	35	20	76	25	50	20	43	100	455
" fade and hand . . . . .	14			4	8	18	16	8	3		71
" striking . . . . .	6	3		6	13	9				3	46
" sledge . . . . .	11	9	2	20	12	46	46	3	20	15	181
Handles, hammer . . . . .	18	72	75	20	84	196	90	25	300	50	929
" pickaxe . . . . .	100	60	25	50	75	75	45	125	60	50	645
Hand-rollers, iron . . . . .	1			1	2	1	1				7
" stone . . . . .							2	1			3
Hand-carts . . . . .	1	1				1	1	1	1	1	6
Hydrant-chucks . . . . .	2	1	1		2	7	1	1		1	16
Hose, feet of . . . . .	218	50	60		50	250		80	100	110	896
Harnesses, chain . . . . .	3	3	3	1	11	12	7	8	3	4	56
" cart . . . . .	3		5	9	7	13	8	8		4	57
" wagon and buggy . . . . .	3	1	2	2	4	4	2	2	3	1	24
Hoes, street and grub . . . . .	39	58	21	30	30		33	82	25	12	330
Horses . . . . .	6		7	16	14	18	11	11	2	5	90
Jiggers . . . . .			1	1	1	3	2			1	9
Jackcrews . . . . .		1		1	1	1	1	1			6
Lanterns . . . . .	70	24	39	50	44	105	120	90	50	60	632
Ladders . . . . .	2	2			2		11	3	2	2	24
Pickaxes, gravel . . . . .	225	131	140	250	109	97	201	220	98	180	1,658
" ice . . . . .	95	94	90	50	119	100	130	111	100	210	1,099
Pinch-bars . . . . .				1	5	3	2	13		1	25
Pungs . . . . .				1	2	1	1	1	1		7
Ploughs, gutters . . . . .	6	3	5	4	13	11	6	14	6	6	74
" snow . . . . .	2	1		9	20	12	4		1	2	61
Picks, grub . . . . .	4		2	20	15	5	8	7	1		62
Pails, water . . . . .	6	2	3	6	12	17	6	12	8	6	73
Rakes, iron . . . . .	6	5	4	15	11	5	9	5	6	4	70
" wooden . . . . .					10						10
Rammers, iron . . . . .	3	4	4	1		3	2	13	3	8	41
" wooden . . . . .	4	2	3	2	2	2	2	11	4	12	44
Robes sleigh, and buggy . . . . .	2	1	1	1	2	3	1	1	1	1	14
Street-rollers, stone . . . . .	1	1	1		1			1			5
" iron . . . . .	3	3	3	4	4	5	3	3	3	1	31
Steam road-rollers . . . . .	1				1	2	2				6
Steam-pumps . . . . .			1								1
Snow-levelers . . . . .	1			1	1	2	1	2	1	1	11
Scythes . . . . .				6	6	8	3		2		25
Sickles . . . . .				6	8	8	5				28
Shovels, gravel . . . . .	75	50	70	94	59	128	216	114	50	36	890
" snow . . . . .	8	66	85	60	100	125	190	160	86	110	970
" long-handled . . . . .	6			10	25	5	8	5	2		60
Street-sweeping machines . . . . .								1	2		3
Screens, gravel . . . . .	4	2	1	4	4	8	4	10	2	1	40
Sleighs . . . . .	1		1	1	1	1	1	1	1	1	9
Sleds . . . . .						4					4
Street horses, wood . . . . .	15	5	15	12	21	10	22	32	26	30	188
Spades . . . . .	3	2			4		2				11
Spoons, drilling . . . . .	15			6	8	11					40
Saws, cross-cut . . . . .	1	1	1	1	2	3	1	1	2	1	14
" hand-cut . . . . .	4	1		2	3	4			6		20

Tools, Horses, Carts, etc. — *Concluded.*

DISTRICT.	1	2	3	4	5	6	7	8	9	10	Total.
Tools for stone-cutters, sets . . . . .	2	1	2	.	1	1	1	5	11	4	28
“ carpenters, sets . . . . .	1	.	1	.	1	.	2	2	1	1	9
“ pavers, sets . . . . .	3	2	2	.	1	1	5	8	2	6	30
“ blacksmiths, sets . . . . .	.	.	.	2	1	1	3	2	.	1	10
Tamping-bars . . . . .	6	2	3	8	2	2	.	7	3	6	34
Trucks . . . . .	.	.	1	.	.	.	1	3	1	2	8
Tool-chests . . . . .	4	4	3	5	11	5	10	11	3	4	60
Wheelbarrows . . . . .	20	11	10	8	2	8	12	27	8	12	118
Wedges . . . . .	5	4	.	40	17	.	26	.	.	.	92
Wrenches, hydrant . . . . .	2	5	.	2	2	2	.	2	.	.	16
Wagon-jacks . . . . .	1	.	1	1	2	2	1	1	1	.	10
Wagons . . . . .	1	1	2	1	2	1	2	1	1	1	13

Respectfully submitted,

C. R. CUTTER,  
*Deputy Superintendent.*

## APPENDIX C.

## ANNUAL REPORT OF THE DEPUTY SUPERINTENDENT OF THE SANITARY DIVISION.

STREET DEPARTMENT, SANITARY DIVISION,  
BOSTON, Feb. 1, 1892.H. H. CARTER, ESQ., *Superintendent of Streets*:

SIR: I herewith submit my Report of Acts and Expenditures of the Sanitary Division from Jan. 1, 1891, to Feb. 1, 1892:

ITEMS OF EXPENDITURES.	Expended from Jan. 1, 1891, to May 1, 1891.	Expended from May 1, 1891, to Feb. 1, 1892.
For labor in sweeping streets and crossings, and removal of snow from public walks, yards, and squares .....	\$28,163 18	
For labor in collection and removal of house-dirt and ashes .....	53,610 72	\$102,433 62
For labor in collection of house-offal .....	30,198 37	76,027 22
For labor of mechanics, foremen, watchmen, feeder, and prison-carriage drivers .....	9,815 55	21,301 27
For labor of men employed in the stables and yards .....		8,870 06
Official pay-roll salary of deputy superintendent and clerks in office .....	1,906 00	6,792 70
Grain used at city stables .....	8,920 56	17,952 21
Hay and straw at city stables .....	2,989 19	8,971 18
For collection of ashes in East Boston .....	2,563 40	7,635 86
For the purchase of new horses .....		5,785 00
For stock and tools purchased for blacksmith shop .....	783 41	2,682 57
For stock and tools purchased for wheelwright's shop .....	943 65	1,334 06
For stock and tools in harness shop .....	427 88	1,166 72
For stock and tools in paint shop .....	131 37	414 31
Extra team-work in collecting ashes .....	16,043 99	45,505 50
Repairs on stables and sheds .....	259 06	546 44
Fuel, gas, and electric lights .....	564 17	1,303 06
Medical attendance on horses, medicine .....	118 97	364 44
Shoeing horses (outside shops) .....	176 73	393 57
Printing, stationery, and advertising .....	240 22	355 84
Broom stock for sweeping streets .....	70 35	
Contracts for the collection and removal of house-offal in East Boston and Brighton .....	1,750 00	5,250 00
Water-rates .....	1,025 23	102 20
Offal stock, consisting of buckets, etc. ....	155 50	162 42
Ash stock, consisting of cart-covers, baskets, etc. ....	95 26	565 91
Street stock, consisting of shovels, hoes, etc. ....	606 51	
<i>Amounts carried forward</i> .....	\$161,059 27	\$315,918 16

ITEMS OF EXPENDITURES.	Expended	
	from Jan. 1, 1891, to May 1, 1891.	from May 1, 1891, to Feb. 1, 1892.
<i>Amounts brought forward</i> .....	\$161,059 27	\$315,918 16
Stable stock, consisting of curry-combs, brushes, sponge, soap, blankets, manure-forks, etc.....	118 12	664 38
Dumping-boat, rental, royalty, towage, rent of wharf, repairs, labor, etc.....	5,092 73	16,405 71
Amount expended on account of Street-Cleaning Division .....	11,549 99	
Incidental expenses as follows :		
Telephone rental and repairs ..	\$140 50	\$424 10
Stabling horses, East Boston, Dorchester, and West Rox- bury .....	148 24	277 47
Claims for personal injuries, damages to fences and car- riages .....	655 20	17 87
Travelling expenses .....	8 05	22 45
Boston directories .....		22 00
Newspapers for office use ....	7 50	6 00
Repairing safe in office .....		7 50
Watering front, No. 12 Beacon street .....		5 00
	\$954 49	\$782 39
	954 49	782 39
	\$178,774 60	\$338,770 64

## INCOME.

Amount paid into the city treasury and credited the Sanitary Division for material sold during the year 1891 :

Sale of ashes . . . . .	\$3,171 91
" " manure . . . . .	759 00
" " offal . . . . .	33,009 43
" " old material . . . . .	803 81
" " street dirt . . . . .	140 40
Removal of ashes . . . . .	4,852 24
Conveying prisoners . . . . .	3,186 00
Use of driveway, Snow's Wharf . . . . .	62 50
	<u>\$45,485 29</u>

**Amount Expended for the Collection of House-dirt, House-offal,  
and Cleaning Streets. Labor and Contracts.**

DISTRICTS.	LABOR. Expended for Sweeping the Streets from Jan. 1, 1891, to May 1, 1891.	LABOR. Expended for Collection of Ashes from Jan. 1, 1891, to May 1, 1891.	LABOR. Expended for Removal of House-offal from Jan. 1, 1891, to May 1, 1891.
City Proper.....	\$26,066 81	\$34,834 69	\$16,175 50
South Boston .....	597 60	1,994 08	2,338 00
East Boston .....	360 40	2,623 87 <sup>1</sup>	1,375 00 <sup>2</sup>
Charlestown .....	428 56	3,432 70	2,298 00
Roxbury .....	701 31	8,262 41	4,997 87
West Roxbury .....	.....	1,844 10	1,200 00
Dorchester .....	.....	2,144 11	3,189 00
Brighton .....	8 50	1,038 66	375 00 <sup>3</sup>
Totals ... ..	\$28,168 18	\$56,174 12	\$31,948 37

<sup>1</sup> East Boston contract included.    <sup>2</sup> East Boston contract.    <sup>3</sup> Brighton contract.

DISTRICTS.	From May 1, 1891, to Feb. 1, 1892.	From May 1, 1891, to Feb. 1, 1892.	From May 1, 1891, to Feb. 1, 1892.
City Proper.....	.....	\$63,009 41	\$39,585 23
South Boston .....	.....	4,156 06	5,878 80
East Boston .....	.....	7,635 86 <sup>1</sup>	4,125 00 <sup>1</sup>
Charlestown .....	.....	7,852 16	5,445 29
Roxbury .....	.....	15,656 76	11,763 05
West Roxbury .....	.....	4,132 44	3,782 80
Dorchester .....	.....	5,575 35	9,572 05
Brighton ....	.....	2,051 44	1,125 00 <sup>1</sup>
Totals .....	.....	\$110,069 48	\$81,277 22

<sup>1</sup> Contract work.

## Total Cost for Removal of House-dirt, House-offal, and Street-cleaning.

ACCOUNTS.	Jan. 1, '91, to May 1, '91.	May 1, '91, to Feb. 1, '92.
<i>Street-cleaning Account.</i>		
Expended for labor for pay-rolls.....	\$28,163 18	
" " stock per ledger acct.....	19,072 90	
	<u>\$47,236 08</u>	
<i>House-dirt Account.</i>		
Expended for labor per pay-rolls.....	\$53,610 72	\$102,433 62
" " stock per ledger acct.....	31,204 54	98,535 00
" " East Boston contract.....	2,563 40	7,635 86
	<u>87,378 66</u>	<u>\$208,604 48</u>
<i>House-offal Account.</i>		
Expended for labor per pay-rolls.....	\$30,198 37	\$76,027 22
" " stock per ledger account.....	8,699 25	35,768 67
" " contracts, East Boston and Brighton..	1,750 00	5,250 00
	<u>40,647 62</u>	<u>117,045 89</u>
Salaries.....	\$1,906 00	\$6,792 70
Incidentals — claims for damages.....	954 49	782 39
Prison wagons.....	651 75	545 18
	<u>3,512 24</u>	<u>8,120 27</u>
	<u>\$178,774 60</u>	<u>\$333,770 64</u>

**Material Collected by Districts.**

FROM JAN. 1, 1891, TO MAY 1, 1891.

	South Teams.	West Teams.	Roxbury Teams.	Chs'n Teams.	E. Bost. Teams.	Brigh'n Teams.	Total Loads.
Ashes .....	45,388	26,388	20,455	5,936	4,157	1,722	104,046
Street-dirt .....	5,886	4,678	.....	.....	.....	.....	10,564
House-offal ..	10,301	.....	2,925	995	960	123	15,304
	61,575	31,066	23,380	6,931	5,117	1,845	129,914

FROM MAY 1, 1891, TO JAN. 28, 1892.

Ashes .....	84,958	57,139	42,899	12,704	9,176	3,042	209,418
House-offal .....	23,974	.....	7,346	1,201	2,160	277	34,958
From Jan. 1, 1891, to Feb. 1, 1892..	108,932	57,139	49,745	13,905	9,176	3,042	241,939
	.....	.....	.....	.....	3,120	400	3,520

**Disposition of Material Collected.**

WHERE DUMPED.	FROM JAN. 1, 1891, TO MAY 1, 1891.			FROM MAY 1, 1891, TO JAN. 28, 1892.			
	Loads Ashes.	Loads Offal.	Total Loads.	Loads Ashes.	Loads Rot.	Loads Offal.	Total Loads.
At sea by scows ...	16,918	275	17,193	50,449	1,883	1,371	53,203
Bulkheads .....	11,116	.....	11,116	19,805	.....	.....	19,805
Vacant lots .....	46,260	.....	46,260	78,115	..	.....	78,115
N. Y. & N. E. R.R..	2,732	.....	2,732	1,106	.....	.....	1,106
Swett street.....	13,917	.....	13,917	27,908	.....	.....	27,908
Mill Pond (Chs'n)...	2,918	2	2,920	8,128	.....	481	8,609
Ward street (Rox.)..	8,994	.....	8,994	17,846	.....	.....	17,846
Dorchester Dist. ....	1,191	.....	1,191	6,061	.....	.....	6,061
	104,046	277	104,323	209,418	1,883	1,852	212,653

**Cost for Carting Material to Dumps.**

	FROM JAN. 1, 1891, TO MAY 1, 1891.			FROM MAY 1, 1891, TO JAN. 28, 1892.		
	Loads.	Cost per Load.	Total Cost.	Loads.	Cost per Load.	Total Cost.
Sent to sea ...	17,193 <sup>1</sup>	\$0 29	\$5,092 73	53,203	\$ 030	\$16,405 91
To all other dumps .....	87,130	60	53,610 72	159,450	64	102,433 62
	104,323	.....	\$58,703 45	212,653	.....	\$118,839 53

**Cost of Blacksmithing and Horse-shoeing.**

HORSE-SHOEING.		Outside Shops.	
Jan. 1, 1891, to May 1, 1891, stock and labor	\$1,453 90		\$176 78
May 1, 1891, to Feb. 1, 1892, " " "	3,717 74		893 57
Total amount expended thirteen months	<u>\$5,171 64</u>		<u>\$870 30</u>

BLACKSMITHS.		
Jan. 1, 1891, to May 1, 1891, stock and labor	\$2,732 51	
May 1, 1891, to Feb. 1, 1892, " " "	4,890 33	
Total amount expended, thirteen months	<u>\$7,622 84</u>	
Number of shoes put on, Sanitary Division, Jan. 1 to May 1		4,533
" " " " " May 1 to Feb. 1		6,501
" " " " " Street-Cleaning Division, May 1 to Feb. 1		2,511
Total number of shoes, thirteen months		<u>13,545</u>

Cost per shoe, about thirty-eight cents.

**Number of Carts.**

Offal-wagons owned by Sanitary Division	79
Ash-carts " " " "	162
" " employed by hired horses	44
Contracts, carts owned by P. Morrison, East Boston	5
Offal-wagons in use by Thomas Mulligan, East Boston	5
" " " Allen Clark, Brighton	2
Total	<u>253</u>

**Cost of Carts.**

Year.		
1884.	Ash-carts	\$148 00
1886.	"	142 00
1888.	"	107 00
1891.	"	133 00

<sup>1</sup> Light carts, for Roxbury.



**Hired Teams.**

FROM JAN. 1, 1891, TO MAY 1, 1891.

	South Yard.	West Yard.	Roxbury Yard.	Charles- town Yard.	Total.
Day's work .....	2,799	584	667	.....	4,050
No. loads collected by teams .....	22,989	3,894	3,397	641	30,921
Amount expended.....	.....	.....	.....	.....	<u>\$16,043 99</u>

FROM MAY 1, 1891, TO JAN. 1, 1892.

Day's work.....	5,352	1,135½	1,672½		
No. loads.....	83,730	7,882½	11,174	2,882	55,668
Amount expended.....	.....	.....	.....	.....	<u>\$45,505 50</u>

**Dumping-boats.**

	Jan. 1, 1891, to May 1, 1891.	May 1, 1891, to Jan. 1, 1892.	Total Amount.
Amount expended for royalty .....		\$1,500 00	\$1,500 00
“ “ rental .....	\$1,665 00	3,540 00	5,205 00
“ “ towing .....	1,922 50	4,379 50	6,302 00
“ “ wharfage.....	531 25	1,500 00	2,031 25
“ “ repairs.....	598 98	1,819 59	2,418 57
“ “ labor .....	375 00	3,068 60	3,443 60
“ “ dredging.....	.....	240 00	240 00
“ “ insurance ...	.....	150 00	150 00
“ “ incidentals ..	.....	208 22	208 22
	<u>\$5,092 73</u>	<u>\$16,405 91</u>	<u>\$21,498 64</u>
Number of trips to sea.....	65	153	218

**Account of the Number of Loads of Material Collected from 1882 to Feb. 1, 1892.**

Year.	Ashes.	Offal.	Street-sweepings.	Cesspool Matter.	Total Loads.
1882	159,197	28,385	52,381	10,051	250,014
1883	169,610	27,408	58,272	8,801	264,091
1884	182,642	28,520	62,222	12,578	285,962
1885	193,734	31,206	61,455	13,151	299,546
1886	209,129	33,170	59,875	11,392	313,566
1887	220,186	36,724	68,990	14,333	340,233
1888	233,514	37,709	68,019	5,644 <sup>1</sup>	344,886
1889	227,325	40,183	70,476	.....	337,984
1890	245,730	40,525	70,449	.....	356,704
1891	313,464 <sup>2</sup>	46,742	10,564 <sup>3</sup>	.....	370,164
	2,154,531	350,572	582,703	75,950	3,163,150

<sup>1</sup> July 1, 1888, the Sewer Department commenced cleaning cesspools.

<sup>2</sup> Ashes from Jan. 1, 1891, to May 1, 1891. . . . . 104,046  
 Ashes from May 1, 1891, to Feb. 1, 1892. . . . . 209,418  
 ----- 313,464

<sup>3</sup> Street-cleaning transferred May 1, 1891, to Street-Cleaning Division.

During the past year there have been conveyed from the several police-stations to the city prison, under the court house, 8,514 prisoners, for which the Board of Police have paid 25 cents per head.

There have been conveyed during the past year, without charge, county prisoners as follows:

From court house to jail . . . . .	2,055
" jail to court house . . . . .	894
" court house to house of correction . . . . .	420
" " to steamer " J. P. Bradlee " . . . . .	5,652
" East Boston to " " . . . . .	8
" " to jail . . . . .	5
" jail to East Boston . . . . .	5
" East Boston to house of correction . . . . .	3
" court house to Boston & Albany R.R. . . . .	80
" South Boston to boat . . . . .	617
" " to jail . . . . .	198
" jail to South Boston . . . . .	58
" South Boston to house of correction . . . . .	17
<b>Total . . . . .</b>	<b>10,012</b>

Since Nov. 1, 1891, the work of conveying prisoners from the several station-houses to court house has been done by the Board of Police. One horse and one van have been sold to said Board. Two horses and two vans have been transferred to the County of Suffolk for conveying county prisoners.

## Distribution of Hay and Grain.

*Account of Hay, Straw, and Grain fed out and used for Horses of the Street Dept., Sanitary Div., from Jan. 1, 1891.*

SOUTH YARD. — FROM JAN. 1, 1891, TO MAY 1, 1891.

*Sanitary Horses, 14,760.*

	Bales.	Bushels.	Lbs.	Amount.	Cost per Horse per Day.	Lbs. per Horse per Day.
Hay .....	720	.....	136,658	\$1,048 22	.071502	.093813
Meal .....		1,610	80,700	1,142 50	.071892	.058922
Oats .....		4,142½	132,560	2,368 75	.167115	.081442
Shorts .....			12,600	158 88	.011122	.001222
Corn .....		668	37,408	504 48	.036122	.021222
Carrots .....			2,500	20 00	.002500	.002500
Straw .....	112	.....	29,106	276 56	.011422	.011422
			431,527	\$5,519 39	.375812	.291427

FROM MAY 1, 1891, TO JAN. 1, 1892.

*Sanitary Horses, 18,228; Street-cleaning Horses, 6,543.*

Hay .....	1,205	.....	298,118	\$2,458 66	.092212	.112212
Meal .....		1,524	76,463	1,125 16	.041322	.031222
Oats .....		10,240	327,680	5,261 38	.214171	.134222
Shorts .....			18,000	205 50	.002055	.001222
Straw .....	277	.....	70,655	646 99	.021504	.022122
Corn .....		1,452	86,912	1,201 62	.042084	.031431
Carrots .....			6,215	40 93	.004093	.004211
Eng. Veg. Food .	1 bbl.	.....	200	15 00	.001500	.002222
			879,238	\$10,935 24	.442122	.342122

WEST YARD. — FROM JAN. 1, 1891, TO MAY 1, 1891.

*120 Days, 9,912 Horses.*

Hay .....	1,011	.....	187,677	\$1,283 04	.128304	.182212
Meal .....		992	49,600	684 20	.068422	.0542
Oats .....		3,098	99,136	1,787 53	.183277	.1012
Shorts .....			12,800	160 90	.016172	.012222
Straw .....	105	.....	27,030	244 59	.024435	.022222
Corn .....		30	1,680	25 80	.002580	.001222
Carrots .....						
Peat moss .....	23	.....	1,800	11 25	.001125	.001222
			379,723	\$4,197 31	.422127	.382212

FROM MAY 1, 1891, TO JAN. 1, 1892.

*Sanitary Horses, 12,221; Street-cleaning Horses, 7,077.*

	Bales.	Bushels.	Lbs.	Amount.	Cost per Horse per Day.	Lbs. per Horse per Day.
Hay .....	1,356	.....	242,712	\$2,169 73	.11 <sup>11</sup> <sub>100</sub>	.12 <sup>11</sup> <sub>134</sub>
Meal .....	.....	520	26,241	465 14	.02 <sup>11</sup> <sub>112</sub>	.01 <sup>11</sup> <sub>112</sub>
Oats .....	.....	7,375	235,900	3,816 33	.19 <sup>11</sup> <sub>112</sub>	.12 <sup>11</sup> <sub>134</sub>
Shorts .....	.....	.....	11,950	141 06	.00 <sup>11</sup> <sub>112</sub>	.00 <sup>11</sup> <sub>112</sub>
Straw .....	242	.....	58,409	541 76	.02 <sup>11</sup> <sub>112</sub>	.02 <sup>11</sup> <sub>112</sub>
Corn .....	.....	286	15,976	228 30	.01 <sup>11</sup> <sub>112</sub>	.01 <sup>11</sup> <sub>112</sub>
Carrots .....	.....	.....	6,085	40 07	.00 <sup>11</sup> <sub>112</sub>	.00 <sup>11</sup> <sub>112</sub>
Eng. Veg. Food....	6 bbls.	.....	1,200	90 00	.00 <sup>11</sup> <sub>112</sub>	.00 <sup>11</sup> <sub>112</sub>
			598,473	\$7,492 39	.38 <sup>11</sup> <sub>112</sub>	.30 <sup>11</sup> <sub>112</sub>

HIGHLAND YARD.—FROM JAN. 1, 1891, TO MAY 1, 1891.

*Sanitary Horses, 5,928.*

Hay .....	337	.....	87,766	\$685 20	.11 <sup>11</sup> <sub>112</sub>	.14 <sup>11</sup> <sub>112</sub>
Meal .....	.....	296	14,800	204 88	.03 <sup>11</sup> <sub>112</sub>	.02 <sup>11</sup> <sub>112</sub>
Oats .....	.....	2,430	77,768	1,448 73	.24 <sup>11</sup> <sub>112</sub>	.13 <sup>11</sup> <sub>112</sub>
Shorts .....	.....	.....	4,900	58 75	.00 <sup>11</sup> <sub>112</sub>	.00 <sup>11</sup> <sub>112</sub>
Straw .....	35	.....	8,070	73 64	.01 <sup>11</sup> <sub>112</sub>	.01 <sup>11</sup> <sub>112</sub>
Corn .....	.....	180	10,080	134 00	.02 <sup>11</sup> <sub>112</sub>	.01 <sup>11</sup> <sub>112</sub>
			203,384	\$2,605 20	.43 <sup>11</sup> <sub>112</sub>	.34 <sup>11</sup> <sub>112</sub>

FROM MAY 1, 1891, TO JAN. 1, 1892.

*Sanitary Horses, 10,769; Street-cleaning Horses, 980.*

Hay .....	867	.....	172,433	\$1,441 98	.12 <sup>11</sup> <sub>112</sub>	.14 <sup>11</sup> <sub>112</sub>
Meal .....	.....	420	21,044	311 50	.02 <sup>11</sup> <sub>112</sub>	.01 <sup>11</sup> <sub>112</sub>
Oats .....	.....	3,984	127,488	1,974 96	.16 <sup>11</sup> <sub>112</sub>	.10 <sup>11</sup> <sub>112</sub>
Shorts .....	.....	.....	9,700	114 26	.00 <sup>11</sup> <sub>112</sub>	.00 <sup>11</sup> <sub>112</sub>
Straw .....	78	.....	21,070	189 38	.01 <sup>11</sup> <sub>112</sub>	.01 <sup>11</sup> <sub>112</sub>
Corn .....	.....	355	19,880	366 30	.03 <sup>11</sup> <sub>112</sub>	.01 <sup>11</sup> <sub>112</sub>
Carrots .....	.....	.....	5,720	87 64	.00 <sup>11</sup> <sub>112</sub>	.00 <sup>11</sup> <sub>112</sub>
			377,335	\$4,436 00	.37 <sup>11</sup> <sub>112</sub>	.32 <sup>11</sup> <sub>112</sub>

CHARLESTOWN YARD.—FROM JAN. 1, 1891, TO MAY 1, 1891.

*Horses, 2,135.*

Hay .....	149	.....	30,136	\$201 80	.09 <sup>11</sup> <sub>112</sub>	.14 <sup>11</sup> <sub>112</sub>
Meal .....	.....	210	10,500	147 93	.06 <sup>11</sup> <sub>112</sub>	.04 <sup>11</sup> <sub>112</sub>
Oats .....	.....	720	24,040	401 80	.18 <sup>11</sup> <sub>112</sub>	.11 <sup>11</sup> <sub>112</sub>
Shorts .....	.....	.....	2,910	35 25	.01 <sup>11</sup> <sub>112</sub>	.01 <sup>11</sup> <sub>112</sub>
Straw .....	19	.....	4,939	44 44	.02 <sup>11</sup> <sub>112</sub>	.02 <sup>11</sup> <sub>112</sub>
			72,525	\$830 72	.38 <sup>11</sup> <sub>112</sub>	.33 <sup>11</sup> <sub>112</sub>

FROM MAY 1, 1891, TO JAN. 1, 1892.

*Sanitary Horses, 3,702; Street-cleaning Horses, 1,057; Total, 4,762.*

	Bales.	Bushels.	Lbs.	Amount.	Cost per Horse per Day.	Lbs. per Horse per Day.
Hay .....	390 .....		78,148	\$642 42	.132338	.161238
Meal .....		220 .....	11,000	158 30	.031544	.021473
Oats .....		1,906 .....	60,992	984 81	.203241	.123844
Shorts .....			4,028	45 58	.004558	.004828
Straw .....	49 .....		10,761	96 74	.021227	.021227
Corn .....		85 .....	4,760	64 83	.011727	.001749
Carrots .....			1,820	11 38	.001138	.001524
			171,509	\$2,004 12	.424082	.367777

BRIGHTON YARD. — FROM JAN. 1, 1891, TO MAY 1, 1891.

*Horses, 240.*

Hay .....	17 .....	3,427	\$27 42	.111111	.142777
Oats .....	117 .....	3,744	68 60	.281111	.151111
Straw .....	3 .....	787	7 24	.034444	.034444
		7,958	\$103 26	.431111	.331111

FROM MAY 1, 1891, TO FEB. 1, 1892.

Hay .....	} Included in the account of the South Yard.
Oats .....	
Straw .....	

## HOUSE-OFFAL.

There are employed in removing house-offal 150 men and 79 wagons. The offal is removed from dwelling-houses three times a week during the summer months, and twice a week during the winter; from hotels, markets, and restaurants it is removed daily. There are 62 routes. The men are required to enter the yards, collect the offal, and empty the same into wagons; then to drive to one of the depots owned by the city. There are three offal depots, located as follows: one on Albany street, one on Highland street, Roxbury, and one at the Almshouse, Charlestown. The offal is sold to farmers of adjoining towns, who purchase a ticket of the offal clerk for the quantity they want; the ticket is then taken to the clerk in charge of the dump, and he measures out the quantity the ticket calls for; the ticket is punched and returned at night to the clerk it was purchased of, who makes out his daily account from the tickets sold.

## HOUSE-DIRT AND ASHES.

There are employed in the collection and removal of house-dirt and ashes 195 men and 162 carts, with two men to each team. This material is removed from hotels, tenement-houses, and stores daily; from dwelling-houses once a week. There are 82 regular routes. The ordinance requires that house-dirt and ashes shall be kept in an easy place for removal. The men are required to enter the yards and remove the vessels of ashes, place them upon the sidewalks; the teams follow and are loaded; the empty vessels are returned to their original position in the yard. There are employed 8 sub-foremen and 12 dumpers.

The ashes are sold and used for filling purposes.

## FOREMEN, MECHANICS, WATCHMEN, ETC.

There are 4 district foremen; 15 mechanics who are employed in painting and manufacturing and repairing carts, wagons, sleds, and harnesses, and shoeing horses; 5 watchmen and 4 feeders.

## Horse Account.

1891.			Dr.	1891.			Cr.
Jan. 1.	On hand		274	Feb. Killed			1
Apr. 3.	Purchased		2	Mar. 12. Died			1
Apr. 7.	"		4	Mar. 25. "			1
Nov. 27.	"		2	Mar. 25. Killed			4
Dec. 8.	"		2	Mar. 31. "			1
Dec. 10.	"		2	May 1. Transferred to Street-			
Dec. 14.	"		2	Cleaning Division			67
Dec. 21.	"		2	May 11. Exch'd W. K. Porter			6
				May 16. Killed			2
				July 15. "			1
				Aug. 19. Died			1
				Aug. 28. "			1
				Dec. 23. Exch'd W. K. Porter			5
				1892.			
				Jan. 1. On hand			199
Total			290	Total			290

# SCHEDULE OF CITY PROPERTY AT THE SOUTH, WEST, ROXBURY, AND CHARLESTOWN STABLES.

199 Horses.		
196 Harnesses, double and single.		
196 Woollen blankets.		
32 Carpet blankets.		
6 Buffalo robes.		
Stock and tools in harness shop.....	\$270 00	worth.
Tools in blacksmith shop .....	400 00	"
Blacksmith stock, iron and steel .....	3,000 00	"
Tools in wheelwright shop .....	115 00	"
Stock in wheelwright shop.....	5,175 00	"
Stock and tools in paint shop .....	261 75	"
Hay, straw, corn, oats, etc. ....	2,033 00	"
162 Carts for collecting ashes.		
79 One-horse wagons for collecting house-offal.		
4 One-horse cesspool wagons.		
5 Express wagons.		
8 Old open wagons.		
6 Top buggies.		
2 Two-seated wagons (new).		
3 Vehicles for conveying prisoners.		
1 Hay-rigging.		
5 Market wagons.		
215 Sleds for conveying ashes and offal.		
8 Sleighs.		
4 Pungs.		
122 Snow-drags.		
1 Demeritt cart.		
1 Dumping-barge.		
219 Cart-covers.		

Respectfully submitted,

GEORGE W. FORRISTALL,

*Deputy Superintendent.*

## APPENDIX D.

REPORT OF DEPUTY SUPERINTENDENT OF  
SEWER DIVISION.

MR. H. H. CARTER, *Superintendent of Streets of the City of Boston* :

SIR: The following report of the expenses, income, and business of the Street Department, Sewer Division, from Jan. 1, 1891, to Feb. 1, 1892, together with a few suggestions on subjects which should receive attention, is respectfully submitted :

A large amount of work was done, in sewer construction, in this division the past year; but it comprises but a small part of the present needs of the city in this direction. These needs can only be satisfied by liberal appropriations, which would unquestionably be sanctioned by the citizens generally, if they could be made thoroughly conversant with the subject. No subject is of greater importance to a large and densely populated city than that of sewerage. The old and imperfect sewers, mostly in the older and more thickly settled districts, are in many cases nothing more than elongated cesspools, and are such a menace to the health of the public that they should be rebuilt without delay. In the rapidly growing districts there is a great demand for new sewers, which should be heeded, as it is shown repeatedly that the failure to build sewers petitioned for has greatly delayed the development of these localities, and consequently prevented the great increase in valuation which would have resulted. The policy advocated by this department, to be pursued in sewerage the suburban districts, differs from that of our predecessors in respect to the right and policy of using the natural watercourses for purpose of sewer overflows instead of for surface drainage only as a part of a separate system. The reason for the present policy is as follows: By the method now advocated the brooks would escape the worst of the street-washings, which would be carried off by the sewers before they would begin to overflow, but would receive a slight contamination from sewage; slight, because the volume of sewage is ex-



tremely small compared to the volume of storm-water. The brooks are bound to carry dirty water in either case, as soon as the district is built up; there does not seem to be much choice, certainly not enough to warrant the expense and inconvenience of a double system of sewers.

Though a choice of evils, the evil in either case is small, for this reason, that, whether it be foul street-wash or dilute sewage which the brook receives, it is received at the beginning of the storm and followed by a flood of clear water which will sweep it away.

Whatever may be the result of such method, I firmly believe that it is the only thing for the city to adopt, and so far as the city may be liable for damage, it seems to me that the case of *Merrifield v. Worcester*, 110 Mass. Reports, page 216, shows that the city would not necessarily be so liable. In that case, the plaintiff sued for an alleged violation of his rights as riparian proprietor, upon a small natural stream running through the city of Worcester, near its centre. The injury complained of was that of polluting its waters so as to render it unfit for mechanical and other purposes, to which the plaintiff had been accustomed to apply it. He alleged generally that "the defendant in 1861, and on divers days and times after that time, had cast, and caused to be cast, carried, and deposited into said brook above the plaintiff's works, great quantities of filth, dirt, gravel, refuse and material matters discharged from sewers, privies, water-closets, stables, sinks, and streets, and divers other noxious materials and ingredients."

The Court in this case say :

"The case, then, presents the question upon what grounds and to what extent a city is responsible in damages for such effects produced by its system of drainage, or by the manner in which its drains are used and managed. The right, of which the plaintiff alleges a violation, is not that of acquired property in possession. It is not an absolute right, but a natural one, qualified and limited, like all natural rights, by the existence of like rights in others. It is incident merely to his ownership of land through which the stream has its course. As such owner, he has the right to enjoy the continued flow of the stream, to use its force, and to make limited and temporary appropriation of its waters. These rights are held in common with all others having land bordering upon the same stream; but his enjoyment must necessarily be according to his opportunity, prior to those below him, subsequent to those above. It follows that all such rights are liable to be modified and abridged in the enjoyment, by the exercise by others of their own rights; and,

so far as they are thus abridged, the loss is *damnum absque injuria*. The only limit that can be set to this abridgment through the exercise by others of their natural rights, is in the standard or measure of reasonable use.

"So the natural right of the plaintiff to have the water descend to him in its pure state, fit to be used for the various purposes to which he may have occasion to apply to it, must yield to the equal right in those who happen to be above him. Their use of the stream for mill purposes, for irrigation, watering cattle, and the manifold purposes for which they may lawfully use it, will tend to render the water more or less impure. Cultivating and fertilizing the lands bordering on the stream, and in which are its sources, their occupation by farm-houses and other erections, will unavoidably cause impurities to be carried into the stream. As the lands are subdivided and their occupation and use become multifarious, these causes will be rendered more operative, and their effects more perceptible. The water may thus be rendered unfit for many uses for which it had been before suitable; but so far as that condition results only from reasonable use of the stream in accordance with the common right, the lower riparian proprietor has no remedy.

"When the population becomes dense, and towns or villages gather along its banks, the stream naturally and necessarily suffers still greater deterioration. Roads and streets crossing it, or running by its side, with their gutters and sluices discharging into it their surface-water collected from large spaces, and carrying with it in suspension the loose and light material that is thus swept off, are abundant sources of impurity, against which the law affords no redress by action."

The foregoing is the language of the Supreme Court of this State. I claim that such use of the brooks as is now recommended could be shown to be only "reasonable use" within the meaning of the Court, and that altogether too much weight has been given to the fact that a small quantity of sewage would be unavoidably carried into the brooks by the first overflow. It is not necessary to be able to assert that there is absolutely no sewage in the overflow from the sewer; it will be sufficient to show that the brooks are not unreasonably defiled, more than they would be by the naturally dirty water from a settled district; that there is no *permanent* sewage contamination. Certainly this technical point about a mere trifle of sewage ought not to be held to be of sufficient importance to force the city into building a complete separate system.

Parties continue to violate the ordinance which prohibits the exhausting of steam into the sewers. To secure compliance with the ordinance it is necessary first to identify the offenders, usually the most difficult part of the undertaking. In many cases the steam has been traced to its source, notice served upon the parties offending, and the nuisance abated; many more cases will follow.

Another vexed question is that of proper disposal of roof-water.

Section 101 of Chapter 374 of the Acts of 1885 requires that "all water shall be conducted from a building or from land to the street, gutter, or sewer, in such a manner as not to flow upon the sidewalk." It is impracticable to convey this water to the street or gutter without its flowing over the sidewalk on account of its freezing in winter and filling up its channel with ice, whether that channel is open or covered. When the law is enforced, the usual and only practicable expedient, where there is a sewer, is to connect the leaders with the house-drain. Unless a trap is interposed between this point of connection and the sewer, this method is objectionable, for the reason that the leaders will conduct the gases from the sewer to the upper windows of the houses. It is also objectionable in those low districts where separate systems of sewers have to be built large enough to store the sewage during periods when the height of tide prevents discharge, as the volume of roof-water is about twelve times that of the sewage proper. Whenever there is a catch-basin near by, the leaders can be connected with it, and this is a very satisfactory arrangement. But catch-basins are several hundred feet apart, and can serve but few houses in this way. These considerations naturally lead to the suggestion that a pipe might be laid under the gutter to connect the catch-basin and furnish a continuous channel into which the leaders from the roofs could discharge, and if this pipe were laid deep enough to prevent freezing no further trouble would ensue. In districts where the sewers are built on the combined principle, taking storm-water from the streets as well as sewage, these pipes could be small; in those districts where a separate system of sewers is built to take house sewage only, these pipes could be larger, and could be developed into the system of surface-drains, which is the necessary complement of a separate system. The only objection to this proposition is on account of the cost; but the city cannot wholly escape expense in dealing with this roof-water problem, — it is sued every year for large sums for personal injuries from icy sidewalks.

Sewer assessments, covering the period from Jan. 1, 1891,

to Feb. 1, 1892, to the amount of \$59,104.06, have been made and determined by the Deputy Superintendent of the Sewer Division, in accordance with the Acts and Resolves of the Legislature.

Bills for sewer assessments amounting to \$21,025.53 have been sent to the City Collector for collection.

Entrance fees to the amount of \$3,072.00 have been collected (from estates upon which no assessment was ever levied) in accordance with the ordinances of the city of Boston. Twenty-four hundred and eighty-six permits have been granted to drain-layers to connect house-drains with the sewers, or to repair old drains; and the work done under these permits has been duly inspected.

Following are tables showing the financial exhibit of the division, the detailed record of sewers built, the rainfall as gauged at the Albany-street yard, schedule of property, report of pumping done during the year, etc.

## Financial Statement.

APPROPRIATIONS.	Balances on hand Jan. 1, 1891.	Appropriations and Revenue added during the 4 months ending Apr. 30, 1891.	Amounts at the disposal of the Sewer Dept. during the 4 months ending Apr. 30, 1891.	Expenditures during the 4 months ending Apr. 30, 1891.	Balances on hand Apr. 30, 1891.	Appropriations and Revenue added during the 9 months ending Jan. 31, 1892.	Amounts at the disposal of the Sewer Div'n during the 9 months ending Jan. 31, 1892.	Expenditures during the 9 months ending Jan. 31, 1892.	Balances on hand Jan. 31, 1892.
*Sewer Department, now Street Department, Sewer Division . . . . .	\$54,748 24	\$20,892 05	\$75,640 29	\$75,387 41	\$242 88	\$372,878 40	\$373,121 28	\$370,826 28	\$2,296 00
Arlington street . . . . .						\$ 2,107 69	2,107 69	1,970 06	137 63
Border street . . . . .						\$ 1,108 91	1,108 91	1,108 91	
Burnett street . . . . .						\$ 716 55	716 55	716 55	
Cambridge street . . . . .						1,500 00	1,500 00	1,500 00	
Catch-basins, etc., Huntington avenue . . . . .						\$ 472 95	472 95	454 34	18 61
Catch-basins, Stanhope street . . . . .						227 05	227 05		227 05
Catch-basins, Wards 19 and 22 . . . . .						190 21	190 21	190 21	
Charlestown Sewers, repairing . . . . .						11,000 00	11,000 00	8,968 71	2,031 29
Cleveland place . . . . .						157 00	157 00	157 00	
Crawford street, Humboldt avenue to Walnut avenue . . . . .						5,000 00	5,000 00	2,030 80	2,969 20
Culverts, Ward 24 . . . . .						5,000 00	5,000 00	5,000 00	
Dike, Winthrop Junction . . . . .						2,350 00	2,350 00		2,350 00
Dunstable street . . . . .						1 373 56	373 56	373 56	
Dustin street . . . . .						6,000 00	6,000 00	6,000 00	



Financial Statement. — *Concluded.*

APPROPRIATIONS.	Balances on hand Jan. 1, 1891.	Appropriations and Revenue added during the 4 months ending Apr. 30, 1891.	Amounts at the disposal of the Sewer Dept. during the 4 months ending Apr. 30, 1891.	Expenditures during the 4 months ending Apr. 30, 1891.	Balances on hand Apr. 30, 1891.	Appropriations and Revenue added during the 9 months ending Jan. 31, 1892.	Amounts at the disposal of the Sewer Div'n during the 9 months ending Jan. 31, 1892.	Expenditures during the 9 months ending Jan. 31, 1892.	Balances on hand Jan. 31, 1892.
<i>Brought forward.</i> . . . . .	\$100,436 52	\$40,893 06	\$141,327 57	\$104,468 78	\$36,858 79	\$498,011 73	\$534,870 52	\$490,832 54	\$44,037 98
Sewer outlet, Ryron street, East Boston . . . . .	..	..	..	..	..	11,211 83	1,211 83	1,208 19	3 64
Sewer, Commonwealth avenue . . . . .	..	..	..	..	..	1,000 00	1,000 00	1,000 00	..
Sewers, East Boston . . . . .	..	..	..	..	..	5,300 00	5,300 00	2,925 70	2,374 30
Sewers, Eleventh Aldermanic District . . . . .	..	..	..	..	..	1,046 97	1,046 97	..	1,046 97
Sewer, Falcon street . . . . .	..	..	..	..	..	1,000 00	1,000 00	1,000 00	..
Sewer, Harcourt Street . . . . .	..	..	..	..	..	432 00	432 00	432 00	..
Sewer, Hillside street . . . . .	..	..	..	..	..	579 19	579 19	579 19	..
Sewer, Homer street . . . . .	..	..	..	..	..	1,250 00	1,250 00	1,250 00	..
Sewer, Lawrence avenue, Quincy and Magnolia streets . . . . .	..	..	..	..	..	6,000 00	6,000 00	4,143 12	1,856 88
Sewer, Milton street, East Boston . . . . .	..	..	..	..	..	11,865 31	865 31	865 31	..
Sewer, New street . . . . .	..	..	..	..	..	450 00	450 00	15 29	434 71
Sewer outlets, D street . . . . .	..	..	..	..	..	10,000 00	10,000 00	8,976 17	6,023 83
Sewer outlet extension, Cottage street . . . . .	..	..	..	..	..	11,180 50	180 50	180 50	..
Sewers, Orient Heights . . . . .	..	..	..	..	..	11,390,000 00	29,050 00	99,585 04	64 96
Sewer, Parker Hill street . . . . .	..	..	..	..	..	1,024 00	1,024 00	1,024 00	..

## STREET DEPARTMENT.

323

	395 19	370 92	24 27
Sewer, Peter Parley road . . . . .	395 19	370 92	24 27
Sewers, Roxbury . . . . .	10,220 81	341 33	9,859 43
Sewer, Welles avenue . . . . .	750 00	750 00	
Sewers, Savin Hill District . . . . .	12,824 07	12,540 51	283 56
Sewers, South Boston . . . . .	4,000 00	231 11	3,768 89
Sewers, Ward 23, Washington street, etc.	2,000 00	2,000 00	
Sewers, Westville, Freeman, and Charles streets . . . . .	8,000 00	4,003 36	3,996 64
Stables and Sheds, Brighton . . . . .	4,500 00		4,500 00
Sumner and Orleans streets . . . . .	13,000 00	13,000 00	
Tyler street . . . . .	7,000 00	7,000 00	
Walk Hill street . . . . .	1,500 00	1,500 00	
Whitmore street . . . . .	700 00		700 00
Stony Brook, Improvement of . . . . .	20,000 00	19,914 86	85 14
Total . . . . .	\$679,630 39	\$600,669 19	\$78,961 20

11 Original Appropriation, \$1,839 50, of which \$607.07 was transferred.  
 12 Original Appropriation, \$1,230, of which \$384.00 was transferred.  
 13 Original Appropriation, \$3,000, of which \$2,839.50 was transferred.  
 14 Original Appropriation, \$50,000, of which \$20,650 was transferred.

15 Loan  
 Furnished by Street Department in April, 1891 . . . . .

\$33,000 00  
 935 31  
 \$33,935 31



## IMPROVED SEWERAGE MAINTENANCE.

Office expenses . . . . .	\$1,067 96
Pumping-station, inside . . . . .	43,058 86
“ outside . . . . .	16,583 50
Engines and boilers . . . . .	6,813 82
Main and intercepting sewers . . . . .	10,575 59
Moon Island . . . . .	10,611 61
Tow-boat . . . . .	4,719 00
	<hr/>
	\$93,430 34
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## STONY-BROOK IMPROVEMENT.

Damages and claims . . . . .	\$3,082 44
Roslindale channels . . . . .	20,347 30
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	\$23,429 74
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## MISCELLANEOUS.

Office expenses, including salaries of deputy superintendent, clerks, and draughtsmen, stationery, drawing materials, etc. . . . .	\$19,588 69
Engineering expenses, including salaries of engineers, instruments, etc. . . . .	21,282 11
Current expenses of eight yards and lockers . . . . .	22,110 72
Current expenses of seven stables, including cost of horses, vehicles, harnesses, etc. . . . .	27,656 16
Repairing sewers . . . . .	7,268 53
Cleaning and flushing sewers . . . . .	16,884 42
Cleaning catch-basins . . . . .	39,593 28
Repairing streets . . . . .	463 16
Building and repairing culverts and surface drains . . . . .	19,733 07
Examining and locating . . . . .	6,826 05
Dredging . . . . .	1,080 00
Maintenance Stony brook . . . . .	13,071 65
Work for departments and others . . . . .	7,064 51
House connections . . . . .	4,986 74
Water-rates . . . . .	8,724 83
Drainage privileges . . . . .	900 00
Damages and claims . . . . .	5,757 80
Holidays . . . . .	18,846 73
Travelling and incidental expenses . . . . .	3,031 95

*Amount carried forward,*

**\$244,870 40**

<i>Amount brought forward,</i>	\$244,870 40
Balances on old contracts . . . . .	163 31
Repairs of department buildings, stables, and yards . . . . .	2,527 22
Hardware, blacksmithing, and tools . . . . .	12,001 77
Rubber goods . . . . .	1,380 70
Engines and boilers . . . . .	826 36
Stock and supplies not included elsewhere . . . . .	4,444 49
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	\$266,214 25
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## RECAPITULATION.

*Sewers.*

City Proper . . . . .	\$17,035 97	
Charlestown . . . . .	9,946 22	
Brighton . . . . .	13,873 32	
East Boston . . . . .	78,188 41	
South Boston . . . . .	5,465 00	
Dorchester . . . . .	68,197 36	
Roxbury . . . . .	67,245 91	
West Roxbury . . . . .	50,472 38	
	<hr/>	\$310,424 57

*Catch-Basins.*

City Proper . . . . .	\$5,010 79	
Charlestown . . . . .	1,181 85	
Brighton . . . . .	1,239 86	
East Boston . . . . .	4,508 68	
South Boston . . . . .	1,794 35	
Dorchester . . . . .	2,358 05	
Roxbury . . . . .	6,113 03	
West Roxbury . . . . .	1,653 09	
	<hr/>	23,859 70
Improved Sewerage Maintenance . . . . .		93,430 34
Stony-brook Improvement . . . . .		23,429 74
Miscellaneous . . . . .		266,214 25
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		\$717,358 60
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## City Proper.

*Sewers built between Jan. 1, 1891, and Feb. 1, 1892, by the City, either by Contract or Day Labor.*

LOCALITY.		Length in feet.	Dimensions and Material.	Expenditures for 13 Mos. ending Jan. 31, 1892.	REMARKS.
Built in	Between				
Cleveland pl. ....	Margaret and Snowhill sts.	63.00	12-in., pipe.	\$320 88	*Paid by Paving Division . \$143 00 Paid by Sewer Division . 177 88 The old area walls of all the buildings on the place had to be taken down and rebuilt, as they interfered with the sewer.
Harcourt st. ....	St. Botolph and O. C. R. R.	268.90	15-in., pipe.	469 40	
Margaret st. ....	Prince st. and Cleveland pl.	95.00	19-in., pipe.	287 82	New sewer rebuilt three feet lower than old one, and all house-connections lowered and rebuilt.
McLean st. ....	Blossom st. and McLean ct.	387.45	15-in., pipe. }	1,623 22	Old sewer taken out and all house-connections lowered and rebuilt.
McLean st. ....	McLean ct. and Chambers st.	136.00	12-in., pipe. }	12,055 79	Old wooden sewer removed, together with old cob-dock walls, new sewers rebuilt at lower grade, with heavy concrete foundation, and all house-connections lowered and rebuilt.
Oak st. ....	Hudson st. and Tyler st. ....	151.20	2-ft. X 3-ft., brick. }		
Oak st. ....	Tyler st. and Harrison ave.	173.66	2 ft. X 3-ft., brick. }		
Tyler st. ....	Harvard st. and Oak st. ....	544.12	2-ft. X 3-ft., brick. }		
Stoughton st. ....	Albany st. and Harrison ave.	546.97	15-in., pipe.	1,896 06	*Paid by Paving Division . \$1,011 77 Paid by Sewer Division . 884 29
St. Botolph st. ....	Garrison st. and Harcourt st.	256.40	2-ft. X 3-ft., brick.	1,538 07	

Scotia st.....	End of old sewer and Both- nia st.....	85.90	12-in., pipe.	243 04	* Paid by Paving Division.
		<u>85.90</u>		<u>\$18,438 78</u>	
*Sewers built on account of Paving Division		2,708.60		1,997 81	
				<u>\$17,035 97</u>	
Forty-two new catch-basins and connections built and 344 repaired			\$10,974 74		
Less amount furnished by Paving Division			<u>5,968 95</u>	5,010 79	
				<u>\$22,046 76</u>	

**City Proper.***Surface Drains built between Jan. 1, 1891, and Feb. 1, 1892, by the City.*

LOCALITY.		Length in feet.	Dimensions and material.
Built in.	Between.		
Huntington ave. .	Garrison st. and W. Newton st. . .	179.00	12-in., pipe.
State st.	Atlantic ave. and Commercial st. .	652.62	18-in., pipe.
Tremont st. . . . .	Mason st. and West st. . . . .	289.00	12-in., pipe.
		88.90	10-in., pipe.
Tremont st. . . . .	West st. and Temple pl. . . . .	247.95	10-in., pipe.
	Total . . . . .	1,457.47	

The cost of this work is included in the expenditure on account of building catch-basins, etc.

**Work Done for and Paid by Paving Division, City.**

STREET.	CATCH-BASINS.		MANHOLES.		SEWERS.	
	Built.	Repaired.	Built.	Repaired.	Length in Feet.	Size.
Cleveland place . . . . .					28.12	12-in. pipe
Bedford street . . . . .	3					
Wendell street . . . . .	1					
Stoughton street . . . . .					290.	15-in. pipe
Wareham street . . . . .	2	2				
Dover street . . . . .		2				
Columbus avenue . . . . .		8				
East Concord street . . . . .		2		2		
East Newton street . . . . .				2		
Harrison avenue . . . . .		8		2		
Rochester street . . . . .		2				
Scotia street . . . . .	3			2	85.90	12-in. pipe
Cambridge street . . . . .		22				
Beacon street . . . . .		7		2		
Tremont street . . . . .	7	1				
Camden street . . . . .	2					
Charles street . . . . .	2	1				
Hudson street . . . . .		18		7		
Seneca street . . . . .		2	1			
Longwood avenue . . . . .		1				
Troy street . . . . .		8		2		
Fulton street . . . . .	2					

**Work done for Paving Division, City.****SUMMARY.**

22 catch-basins built.  
 79 " repaired.  
 1 manhole built.  
 19 manholes repaired.  
 409.02 feet of sewers built.

## Charlestown.

Sewers built between Jan. 1, 1891, and Feb. 1, 1892, by the City, either by Contract or Day Labor.

LOCALITY.		Length in feet.	Dimensions and Material.	Expenditures for 13 Mos. ending Jan. 31, 1892.	REMARKS.
Built in	Between				
Bunker Hill street....	Green and Concord streets..	67.75	20-in. X 26-in., brick	\$429 70	Old sewer removed and new one built at lower grade.
Common and Adams streets. ....	Putnam and Chestnut sts..	927.40	15-in., pipe.	1,247 22	Old sewer removed, and new one built five feet lower, and all old house-connections rebuilt.
Dunstable street.....	Existing sewer and Main st.	101.20	12-in., pipe.	232 27	* Paid by Paving Division. { Old sewer removed from trench, and house-connections connected with new sewer. Two manholes built on this sewer.
Hill street.....	Cook and Sackville sts....	239.00	12-in., pipe.	886 03	
Lynde street and outlet.....	B. & M. R. R. and Austin st.	{ 93.00 512.08	18-in., pipe. 12-in., pipe. }	1,753 42	
Russell street.....	Oak and Mead sts. ....	185.60	12-in., pipe.	554 20	Old wooden scow sewer removed from trench, and new sewer built, and all house-connections made; tide-work.
Summer street.....	School and Elm sts.....	65.00	8-in., pipe.	212 33	
Vine street. . . . .	Chelsea and Moulton sts...	447.75	3 ft. 3 in. X 3 ft. 5 in., brick.	5,443 18	
Walker street.....	Existing sewer and Wall st.	31 60	10-in., pipe.	73 90	
* Sewers built on account of Paving Division . . . . .		2,070.38		\$10,832 27	
Nine new catch-basins and connections built and 22 repaired, \$2,462 53				886 05	
Less amount furnished by Paving Division . . . . .				\$9,946 22	
				1,181 85	
Total . . . . .				\$11,128 07	

**Work done for and Paid by Paving Division, Charlestown.**

STREET.	CATCH-BASINS.		MANHOLES.		SEWERS.	
	Built.	Repaired.	Built.	Repaired.	Length in Feet.	Size.
Medford street....	2	6				
Monument street..	2	.....	.....	1		
Hill street. ....	.....	.....	.....	.....	239	12-in. pipe
Rutherford avenue	3	1				

**SUMMARY.**

7 catch-basins built.

7 " repaired.

1 manhole "

239 feet of sewers built.

**East Boston.**  
*Sewers built between Jan. 1, 1891, and Feb. 1, 1892, by the City, either by Contract or Day Labor.*

LOCALITY.		Length in feet.	Dimensions and Material.	Expenditures for thirteen months ending Jan. 31, 1892.	REMARKS.
Built in	Between				
Bennington and Walley streets ..	300 ft. S. W. of Saratoga st. 700 ft. E. of Ashley ave. 200 ft. and 400 ft. E. of sluiceway and at Saratoga street .....	{ 357.20 1,580.63 }	4 ft. 6 in. X 4 ft. 9 in., brick. 4 ft. X 4 ft. 3 in., brick.	{ \$18,568 15 6,017 71 }	{ Built by contract, Orient Heights, Sec. 1. Brick siphon and tide-gate chamber built at this place.
Borden street. ....	Condor and White streets ..	{ 241.00 204.17 522.68 }	24-in., pipe. 4 ft. 6 in. X 4 ft. 9 in., brick. 15-in., pipe. 12-in., pipe.	{ 1,056 16 7,953 89 }	{ Built by contract. Old wooden scow sewer removed and new brick sewer built; all old house-connections made good.
Bremen street. ....	Porter and Marion streets ..	687.02	3 ft. 8 in. X 5 ft. 4 in., brick.	1,496 13	Built by contract. Built by contract.
Coleridge and Byron streets .....	Rice and Cowper streets ..	{ 673.40 132.30 }	12-in., pipe. 10-in. X 10-in., wood.	{ 1,662 32 1,784 06 }	
Falcon street. ....	Brooks and Putnam streets ..	739.10	12-in., pipe.	862 94	Built by contract. Built by contract.
Homer and Byron sts.	Moore and Horace streets ..	855.12	12-in., pipe.	616 55	
Horace street. ....	Moore and Byron streets ..	{ 149.00 478.25 310.00 }	12-in., pipe. 10 in., pipe. 15-in., pipe.	{ 13,611 64 \$53,657 05 }	{ Old wood and brick sewer removed and new brick sewer built on heavy concrete foundation. Three to seven feet in depth of peat removed and refilled with gravel, and all old house-connections made good.
Maverick street. ....	Short and Jeffries streets ..	{ 4.00 }	12-in., pipe.		
Orleans and Sumner streets .....	Maverick and Cottage sts. ..	{ 713.90 484.00 }	2 ft. 2 in. X 3 ft. 3 in., brick. 4 ft. X 4 ft. 3 in., brick.		
Carried forward .		.....	.....		



## East Boston. — Concluded.

LOCALITY.		Length in feet.	Dimensions and Material.	Expenditures for thirteen months ending Jan. 31, 1892.	REMARKS.
Built in.	Between.				
<i>Brought forward</i> .....	.....	.....	.....	\$53,657 05	
Porter street .....	Bremen and Bennington sts.	{ 560.17 756.35 168 00	{ 3 ft. 8 in. X 5 ft. 4 in., brick. 2 ft. 10 in. X 4 ft. 3 in., brick 2 ft. X 3 ft., brick.	{ 13,859 06	{ Old wooden sewer removed and new brick sewer built on heavy concrete foundation, and from two to eight feet of gravel refilling. All house-connections rebuilt.
Terrace place .....	Off Webster st.....	98.50	12-in., pipe.	217 26	{ *Paid by Paving Div'n, \$100 82 " " Sewer " 116 44
Walley, Leyden, and Gladstone streets ..	Walley st. and W. end of streets .....	{ 558.17 498.40 2,244.65	{ 2 ft. X 3 ft., brick. 15-in., pipe. 12-in., pipe.	{ 10,555 87	{ Built by contract, Orient Heights, Sec. 2. Some rock.
	Total....	13,024.01		\$79,289 23	
* Sewer built on account of Paving Division				100 82	
Eight new catch-basins and connections built and 47 repaired				\$78,188 41	
Less amount furnished by Paving Division				4,508 68	
Total				\$82,697 09	
<i>Sewers Built by Private Parties.</i>					
Private way .....	Off Elbow street, Ward 2...	93.90	10-in., pipe.		

**Work done for and Paid by Paving Division, East Boston.**

STREET.	CATCH-BASIN.		MANHOLES.		SEWERS.	
	Built.	Repaired.	Built.	Repaired.	Length in Feet.	Size.
Jeffries street ....	.....	2	.....	1	.....	.....
Terrace place ....	.....	.....	.....	.....	42.5	12-in.

**SUMMARY.**

2 catch-basins repaired.

1 manhole “

42.5 feet of sewers built.

## Brighton.

*Sewers built between Jan. 1, 1891, and Feb. 1, 1892, by the City, either by Contract or Day Labor.*

LOCALITY.		Length in feet.	Dimensions and Material.	Expenditures for 18 months ending Jan. 31, 1892.	REMARKS.
Built in	Between				
Arlington st. ....	Parsons and Market sts. ...	235.50	15-in., pipe.	} \$2,206 92	Very deep cut, and large amount of water.
Arlington street.....	Parsons st. and west end of st. ....	426.60	12-in., pipe.		
Cambridge street.....	Saunders st. and 550 feet westerly.....	476.65	12-in., pipe.	1,875 85	Rock, and deep cut.
Cambridge street .....	Union sq. to Gordon.....	272 95	15-in., pipe.	} 1,521 96	Rock.
Dustin street .....	N. Beacon and Cambridge st. ....	263.25	12-in., pipe.		
Faneuil street.....	Existing sewer and 60 feet westerly .....	429.60	24-in. X 36-in., brick.	18 55	Built in 1890.
Lincoln street.....	Existing sewer and Everett st. ....	359.80	20-in. X 26-in., brick.	} 6,153 33	Rock, and large amount of water.
N. Beacon and Saunders streets .....	95 feet west of Saunders st. and Guilford st.....	641.60	18-in., pipe.		
Rockland street. ....	Chestnut-hill ave. and Mt. Vernon st. ....	55.60	15-in., pipe.	81 84	
		172.60	12-in., pipe.	238 18	46 feet of this was old sewer, which was taken up and relaid.
		367.35	18-in., pipe.	} 1,143 57	Old sewer rebuilt.
		269.54	15-in., pipe.		
		12.00	12-in., pipe.		
		179.00	12-in., pipe.....	633 12	Rock.
Fifteen new catch-basins and connections built, and six repaired		4,162.04		\$13,873 82	
Less amount furnished by Paving Division				661 01	
Total				1,280 86	
				\$16,113 14	

**Brighton.***Surface Drains built between Jan. 1, 1891, and Feb. 1, 1892, by the City.*

LOCATION.		Length in feet.	Dimensions and Material.		
Built in	Between				
Foster and Mt. Vernon streets.....	Old culvert on Foster st., near Mt. Vernon st., and Eastburn st.....	<div> <div>43.0</div> <div>188.0</div> <div>}</div> </div>	<div>15-in., pipe.</div> <div>12-in., pipe.</div>		
		231.0			

## Brighton.

Sewers built between Jan. 1, 1891, and Feb. 1, 1892, by Private Parties.

LOCALITY.		Length in feet.	Dimensions and Material.	REMARKS.
Built in	Between			
* Almy street.....	Seattle and Windom sts. ....	144.00	15-in., pipe.	** Indicates sewer built by S. Hano at his own expense, the city furnishing engineers and inspectors.
** Andrews road.....	Coolidge and Holland roads.	546.55	15-in., pipe.	
** Coolidge road.....	Mansfield and N. Harvard streets.....	354.80	15-in., pipe.	
Everett square . . .	Existing sewer and 50 feet westerly .....	398.75	12-in., pipe.	
** Haskell road.....	Coolidge and Holland roads	210.40	10-in., pipe.	* Indicates sewers built by D. H. McKay at his own expense, the city furnishing engineers and inspectors.
** Holland road .....	Royal road and N. Harvard street.....	42.00	10-in., pipe.	
Homes street.....	Raymond st. and Western avenue.....	594.40	12-in., pipe.	
* Home avenue.....	N. Harvard and Windom sts.	328.72	12-in., pipe.	
** Homer road.....	Holland and Coolidge roads	539.82	10-in., pipe.	
Murdoch street.....	Hill and Whitney streets....	320.00	10-in., pipe.	
** Royal road.....	Coolidge road and Cambridge street.....	581.15	15-in., pipe.	
* Seattle street .....	Home ave. and Cambridge street.....	416.20	12 in., pipe.	
* Windom street.....	Home ave. and Cambridge street.....	465.50	10-in., pipe.	
		224.95	12-in., pipe.	
		766.60	10-in., pipe.	
		705.53	15-in., pipe.	
		£20.95	12-in., pipe.	
		7,304.32		

**Brighton.**

*Culverts built between Jan. 1, 1891, and Feb. 1, 1892, by the City, either by Contract or by Day Labor*

LOCALITY.		Length in Feet.	Dimensions and Material.
Built in	Between		
Dustin street . . .	Near N. Beacon street .	40.56	5 ft. $\times$ 5 ft., stone.
Hobart street . . .	Near Faneuil street . .	44.25	6 ft. wide $\times$ 7 ft. 6 in. high, stone with brick arch.
Lake street . . . .	Near Washington street.	40.00	5 ft. wide $\times$ 5 ft. 11 in. high, stone, double culvert.
Lake street . . . .	Near Chandler's pond .	43.85	4 ft. 6 in. wide $\times$ 4 ft. 11 in. high, stone, double culvert.
Oakland street . .	Near Faneuil street . .	39.50	6 ft. wide $\times$ 5 ft. 6 in. high, stone with 20 ft. of brick arch, double culvert.
Total . . . . .		208.16	

The cost of this work is included in the amount expended for building culverts, etc.

**Work done for and Paid by Paving Division, Brighton.**

Street.	CATCH-BASINS.		Culverts.
	Built.	Repaired.	
Lake street . . . . .	4	.....	40 ft. 5 ft. $\times$ 5 ft. 11 in., stone.
Murdock street . . . .	2	.....	43.85 ft. 4 ft. 6 in. $\times$ 4 ft. 11 in., stone.

**SUMMARY.**

6 catch-basins built.

83.85 feet of culverts built.

## South Boston.

Sewers built between Jan. 1, 1891, and Feb. 1, 1892, by the City, either by Contract or Day Labor.

LOCALITY.		Length in feet.	Dimensions and Material.	Expenditures for 18 Mos. ending Jan. 31, 1892.	REMARKS.
Built in	Between				
Colton street.....	W. First and W. Second street.....	196.30	12-in., pipe.	\$346 31	Built by contract.
D and Anchor streets,	W. First and E streets .....	600.00	5 ft. X 4 ft., wood.	8,976 17	
Gustin street.....	W. Ninth street and O.C. R.R.....	347.13	12-in., pipe.	574 78	* Paid by Paving Division.
Monks street.....	E. Sixth and E. Seventh streets .....	205.00	12-in., pipe.	386 38	
N street .....	E. Second and E. Third streets .....	208.30	12-in., pipe.	339 20	Built by contract.
O street .....	E. First and E. Second streets .....	249.30	12-in., pipe.	461 21	
Preble, Liberty, and Preble streets .....	Hyde st., Vinton st., and 55 ft. west of Rogers st....	842.36	10-in., pipe.	1,924 98	* { Paid by Paving Division, \$1,919.20. Paid by Sewer Division, \$5.73.
Total.....		2,648.39		\$7,958 98	
* Sewers built on account of Paving Division.....				2,493 98	
				\$5,465 00	
36 new catch-basins and connections built and 16 repaired.....				\$5,361 97	
Less amount furnished by Paving Division.....				3,567 02	
Total .....				1,794 35	
				\$7,259 35	

**Work done for and Paid by Paving Division, South Boston.**

STREET.	CATCH-BASINS.		MANHOLES.		SEWERS.	
	Built.	Repaired.	Built.	Repaired.	Length in feet.	Size.
Preble street.....	5	.....	.....	.....	840.86	10-in. pipe.
First street.....	6	.....	.....	.....		
A street .....	2	.....	2	.....		
Atlantic street.....	.....	.....	1	.....		
Mercer street ....	1	.....	.....	.....		
Fourth street.....	.....	.....	1	.....		
Emerson street....	.....	.....	1	.....		
National street ...	.....	.....	1	.....		
E street .....	1	.....	1	.....		
Second street ....	3	.....	.....	.....		
Dorchester street.	5	.....	.....	.....	347.13	12-in. pipe.
Ninth street.....	3	1	.....	4		
Washburn street..	2	.....	.....	.....		
Gustin street.....	.....	.....	.....	.....		

**SUMMARY.**

28 catch-basins built.  
 1 catch-basin repaired.  
 7 manholes built.  
 4 " repaired.  
 1,187.49 feet of sewers built.



## Dorchester.

Sewers built between Jan. 1, 1891, and Feb. 1, 1892, by the City, either by Contract or Day Labor.

LOCALITY.		Length in feet.	Dimensions and Material.	Expenditures for 13 Mos. ending Jan. 31, 1892.	REMARKS.
Built in	Between				
Adams, Beaumont, and Burgoyne sts. }	Westmoreland st. and Elm road	231.08	18-in., pipe.	} \$5,728 78	Built by contract.
Adams, Codman, and Hutchinson sts. ....		798.16	2 ft. X 3 ft., brick.		
Back and Austin sts. ....	Granite ave. and Brook sts.	987.00	2 ft. 6 in. X 3 ft., brick.	8,561 28	
and private land ....				31 00	Built in 1890.
Bay st., private land }	Midland st. and Savin Hill av.	721.88	2 ft. 4 in. X 3 ft. 6 in., brick.	} 19,877 65	Rock.
Springdale st., }		452.72	1 ft. 8 in. X 2 ft. 6 in., brick.		
Bath ave., Savin Hill ave., and Gramplan way.. }	Bath ave. and Gramplan way	440.00	15-in., pipe.	} 898 53	Built by contract.
	Bath ave. and Savin Hill ave.	1,072.55	12-in., pipe.		
		1,180.00	15-in., pipe.	} 875 61	
		1,129.80	15-in., pipe.		
		422.60	12-in., pipe.	} 78 64	Built by contract. Partial cost only.
Brent street.....	Carlisle and Washington sts.	850.50	12-in., pipe.		
Carruth street.....	Codman and Van Winkle sts.	249.80	15-in., pipe.	} 498 68	* { Paid by Paving Division, \$250.89.
Cherry-st.extension }	Dorchester Brook sewer and	400.64	15-in., pipe.		
and Dalmatia st. }	Cherry street.....	180.00	12 in., pipe.	} 410 00	" { " " Sewer " 159.11.
Dewey street.....	Dacia st. and Blue Hill ave.	257.00	12-in., pipe.		
Genova avenue . . . .	Bowdoin and Westville sts..	167.00	12-in., pipe.		

Harvard and Kilton sts	Talbot av. and Washing'tn st.	995.00	2 ft. X 3 ft., brick.	12,030 63	Very wet job; some rock.
Howard avenue.....	Julian ave. and Hartford st.	900.00	18-in., pipe.	1,134 82	Rock.
Lawrence ave. and Magnolia street....	Quincy st., and 250 ft. up from Magnolia st.....	478.00	15-in., pipe.		
		178.53	12-in., pipe.		
Mt. Everett street.....	Granite av. and Adams st.	408.00	12-in., pipe.	4,439 32	Rock.
Milton street.....	Dorchester Intercepting Sewer and Tileston pl....	44.00	12-in., pipe.	346 75	Built in 1890.
Pope's Hill st. and Neponset ave. ....	Bailey and Ashmont sts....	941.27	2 ft. 4 in. X 3 ft. 6 in., brick.	108 36	* Paid by Paving Division.
Rockwell and Ar- mandine sts., pri- vate land, Ash- mont st.....	Ocean and Washington sts.	300.00	2 ft. X 3 ft., brick.	2,502 78	
School street.....	Washington and Harley sts.	850.00	12-in. pipe.	8,104 23	Rock.
Wells avenue. ....	Bowdoin and Dixon sts. ...	457.76	4-ft., 6-in., circular.	369 00	Measurement included in sewers built by private parties.
Geneva ave. and	Draper st. and Geneva ave.	211.00	3 ft., circular.		
Westville street ....		248.00	3-ft. 6-in., circular.		
Westville street .....		158.00	12-in., pipe.	4,528 22	* { Paid by Paving Division, \$2,666.00. " " Sewer " 1,862.22.
		700.00			
	Total .....	15,854.74		\$71,222 61	
	* Sewers built on account of Paving Division.....			8,025 25	
				\$68,197 36	
	34 new catch-basins and connections built and 16 repaired.....			\$4,269 48	
	Less amount furnished by Paving Division.....			1,911 43	
	Total .....			\$2,358 05	
				\$70,556 41	

**Dorchester.***Sewers built between Jan. 1, 1891, and Feb. 1, 1892, by Private Parties.*

LOCALITY.		Length in feet.	Dimensions and Material.	Remarks.
Built in	Between			
Algonquin and Bradlee sts. . . }	School and Washington sts. . . . . }	244.85 1,454.42	15-in., pipe. 12-in., pipe.	Rock.
Bourneside ave. . . }	Park st. and Melville ave. } . . . . . }	469.00 232.22	15-in., pipe. 12-in., pipe.	
Colonial ave. . . . }	Talbot and New England aves. . . . . }	750.51 220.17	15-in., pipe. 12-in., pipe.	Rock.
Hall st. . . . . }	Dorchester ave. and Ad- ams st. . . . . }	833.97	12-in., pipe.	Rock.
Intervale park . . . }	Bourneside and Melville aves. . . . . }	738.88	12-in., pipe.	
Julian ave. . . . . }	Dorchester-brook sewer and Howard ave. . . . }	275.65	10-in., pipe.	
Morse st. . . . . }	Washington st. and Mt. Bowdoin ave. . . . . }	200.45 275.00	12-in., pipe. 12-in., pipe.	
Moultrie st. . . . . }	Seaborn st. and Church pl. } . . . . . }			
Newport st. and Harbor View st. }	Existing sewer and exist- ing sewer . . . . . }	76.00	12-in., pipe.	Rock.
Nightingale st. . . }	Talbot ave. and Bernard st. . . . . }	520.20 574.45	12-in., pipe. 15-in., pipe.	
Northern ave. . . . }	Whitfield and Washing- ton sts. . . . . }	224.00 444.78	12-in., pipe. 10-in., pipe.	
Private land and Baker pl. . . . }	Dorchester-brook sewer at N.Y. & N.E. R.R. and Bird st. . . . . }	108.15 5.50	15-in., pipe. 12-in., pipe.	
Private street, estate of Ford . . . . . }	Bird st. and end of street. } . . . . . }	155.00 54.00	12-in., pipe. 12-in., pipe.	Rock.
Bill st. . . . . }	Present sewer and Ware st. } . . . . . }			Rock.
Saco st. . . . . }	Dorchester intercepting sewer and Neponset ave. } . . . . . }	188.30 513.75	12-in., pipe. 15-in., pipe.	
School st. . . . . }	Harvard and Washing- ton sts. . . . . }	463.60 954.27	12-in., pipe. 12-in., pipe.	
Seaborn st. } . . . }	Centr. and Kenwood sts. } . . . . . }			Rock.
Kenwood st. } . . . }	Allston and Washington sts. . . . . }	18.00	8-in., pipe.	
Shenandoah st. . . }	Carruth st. and Shawmut Branch R.R. . . . . }	362.50	10-in., pipe.	
Southern ave. . . . }	Talbot ave. and Washing- ton st. . . . . }	371.95	12-in., pipe.	Rock.
Total . . . . .		10,729.57		

**Dorchester.**

*Surface Drains and Culverts built between Jan. 1, 1891, and Feb. 1, 1892, by the City, either by Contract or Day Labor.*

LOCALITY.		Length in Feet.	Dimensions and Material.
Built in	Between		
Bailey st., near Hill- side terrace . . . . .		40.00	4 ft. × 3 ft. 5 in., stone.
Bay st., private land	Midland st. and Savin Hill ave. . . . . }	128.00	30-in., circular iron pipe.
Springdale st. and Bath ave. . . . . }		614.33	30-in., circular, brick.
Blue Hill ave. and Norfolk st. . . . .		25.00	10-in., pipe.
Blue Hill ave., near Harvard st. . . . .		85.00	5 ft. × 4 ft. 5 in., stone.
Carruth st., near Cod- man st. . . . .		72.00	5 ft. × 5 ft., stone.
Centre st., near Sea- born st. . . . .		40.00	3 ft. × 3 ft. 5 in., stone.
Dorchester ave., near Van Winkle st. . . . .		60.00	4 ft. × 3 ft. 5 in., stone.
Dorchester ave., near King st. . . . .		60.00	4 ft. 6 in. × 4 ft. 11 in., stone.
Fuller st., near Hill- side terrace . . . . .		40.00	40 ft. of 4 ft. × 3 ft. 5 in., stone.
Geneva ave. and Westville st. . . . .	Bowdoin and Ditson sts. . . . . }	325.00	24-in., pipe.
Harvard st., near Blue Hill ave. . . . .		530.00	18-in., pipe.
Private land . . . . .	Crusher yard and Rossetter st. . . . .	45.00	5 ft. × 4 ft. 5 in., stone.
Private land. . . . .	River st. and Neponset ave. . . . . }	162.80	12-in., pipe.
		195.00	18-in., pipe.
		12.00	20-in., iron pipe.
		2,434.13	

The cost of this work is included in the amount expended for building culverts, etc.

**Work done for and Paid by Paving Division, Dorchester.**

STREET.	CATCH-BASINS.		MANHOLES.		SURFACE DRAINS AND CULVERTS.	
	Basin.	Repaired.	Built.	Repaired.	Length in feet.	Size.
Ocean street. . . . .	2				44.00	12 in., pipe.
Granite avenue . . . . .	6					
Minot street. . . . .	3			1		
Bushnell street. . . . .	4			4		
Boston and Harvard streets. . . . .	2				517.5	{ 4 ft. 6 in. 3 ft. 6 in. 3 ft. Circular.
Geneva avenue. . . . .						

**SUMMARY.**

17 catch-basins built.

5 manholes repaired.

561.5 feet of sewers, surface drains, etc., built.

**Roxbury.***Sewers built between Jan. 1, 1891, and Feb. 1, 1892, by the City, either by Contract or Day Labor.*

LOCALITY.		Length in feet.	Dimensions and Material.	Expenditures for thirteen months ending Jan. 31, 1892.	REMARKS.
Built in	Between				
Bainbridge street . . .	Walnut ave. and Mayfair st.,	118.60	12-in., pipe.	\$1,321 78	Rock.
Beacon street . . . . .	Brookline ave. and Raleigh street . . . . .	561.12	2 ft. X 3 ft., brick.	9,201 52	Gravel refill; old sea-wall removed which lay in line of trench.
Raleigh street . . . . .	Beacon st. and Bay State road . . . . .	36.33	12-in., pipe.		
Blue Hill avenue . . . .	Dewey st. and Dalmatia st.,	193.30	15-in., pipe.		
Brookline avenue . . . .	Under B. & A. R.R. bridge,	168.28	12-in., pipe.	501 27	Rock.
Brookline avenue . . . .	Across Muddy river . . . .	84.60	24-in., iron pipe.	992 97	Five tracks crossed; very wet job.
Calumet street . . . . .	Sachem st. and Hillside st.,	25.00	24-in., pipe.	181 55	
Commonwealth ave. . . .	Beacon st. and Kenmore st.,	472.62	2 ft. X 3 ft., brick.	5,667 27	Rock.
Commonwealth ave. . . .	Kenmore st. and Brookline avenue . . . . .	226.29	2 ft. 6 in. X 3 ft., brick.		
Commonwealth ave. . . .	Kenmore st. and Charlesgate West . . . . .	48.31	2 ft. X 3 ft., brick.		
Commonwealth ave. . . .	Walnut ave. and Holland st.,	519.45	2 ft. 6 in. X 3 ft., brick.	9,850 22	Trench cut through four old sea-walls.
Crawford street . . . . .	Crawford and Harold sta. . .	72.08	18-in., pipe.		
Holland street . . . . .	Holland st. and top of hill.	544.74	2 ft. 6 in. X 3 ft., brick.		
Crawford street . . . . .	Chester park and Norfolk avenue . . . . .	229.00	1 ft. 8 in. X 2 ft. 6 in., brick.	7,149 21	Rock excavation and pile foundation.
Dorchester brook . . . .	Muddy river and Bellevue street . . . . .	341.07	1 ft. 8 in. X 2 ft. 6 in., brick.	2,317 39	Rock.
Francis street . . . . .	Parker Hill ave. and Walt street . . . . .	580.00	12-in. pipe.	25,094 04	{ Bills brought over from previous year.
Hillside street . . . . .		78.0	13 ft. X 9 ft., brick.	.....	Paid for by Park Commissioners.
		108.00	18-in., pipe.		
		300.45	12-in., pipe.	878 41	Contract.

Humboldt avenue.....	Laurel st. and Munroe st....	890.15	10-in., pipe.		2,546	Rock.
Humboldt avenue.....	Laurel st. and Walnut ave.	479.92	12-in., pipe.		26	
Humboldt avenue.....	Brookledge st. and Seaver street.....					
Parker Hill avenue ..	Tremont st. and Hillside st.,	78.30	12-in., pipe.			
Renfrew street.....	Harrison ave. and Winslow street.....	346.67	15-in., pipe.		1,088	Rock. Contract.
		36.00	10-in. X 10-in., wood.		46	
Reading street.....	Maiden lane and Farnham street.....	172.30	10-in., pipe.		347	
Texas street.....	Tremont st. and Elmwood street .....	201.80	10-in., pipe.		90	
		6,352.83				
* Sewer built on account of Paving Division .....					1,020	* Paid by Paving Division. Stony brook lowered.
					94	
					\$68,266	
					86	
					1,020	
					94	
					\$67,245	
					91	
Fifty-three new catch-basins and connections built and 99 repaired .....				\$10,742	84	
Less amount furnished by Paving Division .....				4,629	81	
					6,113	
					03	
Total.....					\$78,358	
					94	

**Roxbury.***Sewers built between Jan. 1, 1891, and Feb. 1, 1892, by Private Parties.*

LOCALITY.		Length in feet.	Dimensions and Material.
Built in	Between		
Avon place . . .	Extension of old sewer . . . . .	70.00	12-in., pipe.
Caledonia st. . .	Parker st. and W. Chester park . . .	245.05	15-in., pipe.
Dimock st. . . .	Amory st. and Brunswick ave. . .	277.45	12-in., pipe.
Galena st. . . .	Gaston st. and Holborn st. . . .	699.20	15-in., pipe.
		33.20	12-in., pipe.
Gayland ave. . .	Judson st. and W. Cottage st. . .	100.00	10-in., pipe.
Howland st. . . .	Extension . . . . .	195.20	12-in., pipe.
Julian ave. . . .	Dor. Brook sewer and Rand sq., . .	293.00	12-in., pipe.
Judson st. . . .	Julian ave. and Gayland ave. . .	210.35	12-in., pipe.
Mt. Pleasant ave.	End of old sewer and Vine st. . .	50.00	12-in., pipe.
Private st. . . .	Blue Hill ave. and Gaston st. . .	413.00	12-in., pipe.
		2,586.45	

*Work Done for and Paid by Paving Division, Roxbury.*

STREET.	CATCH-BASINS.		Retaining Wall.	Manholes Repaired.	SEWERS.	
	Built.	Repaired.			Length in Feet.	Size.
Dudley st. ....	1	10	.....	9		
Cabot st. ....	1	10	.....			
Haskins st. ....	.....	2	.....	4		
Fulda st. ....	2					
Terrace st. ....	1					
Warren st. ....	1					
Shirley st. ....	2					
Howland st. ....	3					
Albany st. ....	1					
Centre st. ....	.....	.....	.....	2		
Texas st. ....	.....	.....	.....	.....	201.80	10-in., pipe
Parker st. ....	18	.....	170 ft.			

**SUMMARY.**

30 catch-basins built.  
 22     "     repaired.  
 170 feet retaining-wall.  
 15 manholes repaired.  
 201.80 feet of sewers built.

## West Roxbury.

*Sewers built between Jan. 1, 1891, and Feb. 1, 1892, by the City, either by Contract or Day Labor.*

LOCALITY.		Length in feet.	Dimensions and Material.	Expenditures for 18 Mos. ending Jan. 31, 1892.	REMARKS.
Built in	Between				
Burnett st. ....	Washington st. and existing sewer .....	530.63	12-in., pipe.	\$569 16	
Call st. ....	Keyes and Hall sta. ....	304.55	18-in., pipe.	1,083 87	* Paid by Paving Division.
Florence st. ....	511 feet north of Ashland st.	262.53	15-in., pipe.	1,178 95	Rock.
Peter Parley road ...	Washington and Forest Hills sta. ....	510.94	12-in., pipe.	414 67	Hard pan; bowlders and water.
Roslindale and West Roxbury Trunk Sewer, Washington, Cohasset, Albano, Amherst, Houston, and Fresno sta., private land and Belgrade ave.	Kittredge st. and Anawan ave. ....	1,988.80 750.25 1,607.65	2 ft. 4 in. X 3 ft. 6 in., brick 2 ft. 2 in. X 3 ft. 3 in., brick. 2 ft. X 3 ft., brick.	48,545 06	Rock; very wet job.
Sewer Yard, private land, B. & P. R. R., and Lamartine st. ....	Stony Brook Valley Sewer and Paul Gore st. and beyond .....	241.85 239 85 20.00	18-in., pipe. 12-in., pipe. 12-in., steel pipe	1,166 06	{ Stony Brook channel, crossed with iron pipe.



West Roxbury. — *Concluded.*

LOCALITY.		Length in feet.	Dimensions and Material.	Expenditures for 18 Mos. ending Jan. 31, 1892.	REMARKS.
Built in	Between				
Walk Hill st. ....	Hyde Park ave. and Wachuset st. ....	518.93	12-in., pipe.	\$1,428 29	Rock.
Wenham st. ....	Walk Hill and Weldon sts.	623.80	12-in., pipe.	2,170 19	Rock.
Total .....		7,784.09		\$51,503 75	
*Sewer built on account of Paving Division .....				1,033 37	
Twenty-four new catch-basins and connections built and 11 repaired .....				\$50,472 38	
Total . . . . .				1,633 09	
Total . . . . .				\$52,125 47	

**West Roxbury.**

*Surface Drains and Culverts built between Jan. 1, 1891, and Feb. 1, 1892, by the City, either by Contract or Day Labor.*

LOCALITY.		Length in feet.	Dimensions and Material.
Built in	Between		
Allendale street near the Spring . . . . .		40.00	3 ft. 6 in. × 3 ft. 11 in., stone.
Allendale st., lower brook . . . . .		194.00	18-in., pipe.
Dale street . . . . .		40.00	3 ft. 6 in. × 3 ft., stone.
Maynard street . . . . .		65.00	15-in., pipe.
Cornell street, near Washington . . . . .		41.00	4 ft. × 3 ft. 5 in., stone.
Linnet street . . . . .		40.00	4 ft. × 3 ft. 6 in., stone.
South street . . . . .	Hall st., southwesterly	436.00	15-in., pipe.
Spring street . . . . .		350.00	12 in., pipe.
Sycamore and Florence streets . . . . .		73.00	4 ft. × 3 ft. 11 in., stone.
		1,279.00	

The cost of this work is included in the amount expended for building culverts, etc.

**Work done for and Paid by Paving Division, West Roxbury.**

STREET.	Culverts.	SEWER.	
		Length in Feet.	Size.
Cornell street ....	41 ft. 3 ft. 6 in. × 3 ft. 11 in., stone.		
Sycamore & Ridge streets ..... }	73 ft., 4 ft. × 3 ft. 11 in., stone.		
Allendale street.. }	199 ft., 18 in., pipe.		
Shirley street..... }	40 ft., 3 ft. 6 in. × 3 ft. 11 in., stone.		
Maynard street..... }	40 ft., 2 ft. 6 in. × 2 ft. 6 in., stone.		
Call street..... }	65 ft., 15 in., pipe.		
		306.95	18-in., pipe.
		262.63	15-in., pipe.

**SUMMARY.**

299 feet of culverts built.

569.48 feet of sewers built.

**Summary of Sewer Construction for the Thirteen Months  
ending Jan. 31, 1892.**

DISTRICT.	Built by the City by Con- tract or Day Labor. Feet.	Built by Private Parties. Feet.	Total Length Built during the 13 Months ending Jan. 31, 18. 2. Feet.
City .....	4,166.07	.....	4,166.07
Charlestown .....	2,070.38	.....	2,070.38
East Boston .....	13,028.01	93.90	13,121.91
Brighton .....	4,398.04	7,804.32	11,697.36
South Boston .....	2,648.39	.....	2,648.39
Dorchester .....	17,956.87	10,729.57	28,686.44
Roxbury .....	6,352.88	2,586.45	8,934.78
West Roxbury .....	8,635.09	.....	8,635.09
Total .....	59,250.18	20,714.24	79,964.42

9,698 catch-basins cleansed.

1,078.16 feet of culverts built.

710 feet of culverts repaired.

There are now 330 miles of sewers in charge of the Sewer Division.

The amount expended by this division during the thirteen months ending Jan. 31, 1892, including the amount spent under special appropriations, was \$717,358.60.

The items of expenditure are shown in the financial statement.

**Schedule of Sewers built to Date in the City of Boston.**

Wards.	Feet.	Wards.	Feet.	Wards.	Feet.	
		<i>Bro't for'd,</i>		<i>Bro't for'd,</i>		
1.....	74,481	10....	352,935	18....	758,866	
2.....	40,937	11....	38,382	19....	59,878	
3.....	40,937	12....	74,399	20....	45,850	
4.....	30,510	13....	41,817	21....	97,606	
5.....	40,523	14....	51,853	22....	124,409	
6.....	38,850	15....	75,097	23....	86,152	
7.....	45,254	16....	46,829	24....	137,777	
8.....	36,779	17....	31,626	25....	244,748	
9.....	18,532		41,428		87,932	
	27,119					
	352,935		753,866		1,637,413	or 810.1 miles.

Intercepting sewers . . . . . 21.5 miles.

Total

331.6 "

*Fall of Rain and Snow in Inches at South Yard, Albany Street, in thirteen months, ending Jan. 31, 1892.*

Day.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.
1 . . . .	. . .	.26	. . .	. . .	. . .	. . .	. . .	. . .	.81	. . .	. . .	. . .	. . .
2 . . . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1.67
3 . . . .	1.44	.72	.48	1.54	.16	.43	. . .	.11	. . .	. . .	. . .	. . .	. . .
4 . . . .	. . .	. . .	. . .	. . .	. . .	. . .	.34	. . .	. . .	. . .	. . .	.39	. . .
5 . . . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	.35	. . .	. . .	. . .
6 . . . .	. . .	.24	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	.43	1.29
7 . . . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	.58	2.08	. . .	. . .	. . .	. . .
8 . . . .	. . .	.56	. . .	. . .	. . .	. . .	.66	. . .	. . .	. . .	. . .	. . .	. . .
9 . . . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	2.27	. . .	. . .	. . .
10 . . . .	.96	.80	.56	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
11 . . . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	.01	. . .	. . .	. . .
12 . . . .	. . .	. . .	. . .	.90	. . .	. . .	. . .	.27	. . .	. . .	. . .	. . .	. . .
13 . . . .	. . .	. . .	.81	. . .	.08	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
14 . . . .	.17	. . .	.02	. . .	. . .	. . .	. . .	. . .	.07	2.29	. . .	. . .	. . .
15 . . . .	. . .	. . .	. . .	.55	. . .	. . .	.04	.43	. . .	. . .	. . .	. . .	1.77
16 . . . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	.47	. . .
17 . . . .	. . .	.23	. . .	. . .	1.23	. . .	. . .	. . .	. . .	. . .	.61	. . .	. . .
18 . . . .	. . .	.34	. . .	.18	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
19 . . . .	1.36	. . .	. . .	. . .	. . .	.97	.26	. . .	. . .	. . .	. . .	. . .	1.56
20 . . . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	.90	. . .	. . .	.29
21 . . . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
22 . . . .	1.12	.68	2.16	. . .	. . .	1.72	. . .	.51	. . .	. . .	. . .	. . .	. . .
23 . . . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	.64	.24	.28	. . .
24 . . . .	. . .	. . .	. . .	. . .	. . .	. . .	.59	.11	. . .	. . .	. . .	. . .	. . .
25 . . . .	.80	1.25	. . .	.08	. . .	. . .	. . .	. . .	. . .	. . .	. . .	.60	. . .
26 . . . .	. . .	. . .	. . .	. . .	.02	.09	. . .	. . .	. . .	.03	. . .	.23	. . .
27 . . . .	.22	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	.18	1.29	. . .	. . .
28 . . . .	. . .	.16	. . .	. . .	. . .	. . .	. . .	1.14	. . .	. . .	. . .	. . .	. . .
29 . . . .	. . .	. . .	. . .	. . .	.52	. . .	.49	. . .	.03	. . .	. . .	. . .	. . .
30 . . . .	.36	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1.38	. . .
31 . . . .	.20	. . .	. . .	. . .	. . .	. . .	.82	.36	. . .	. . .	. . .	. . .	. . .
Totals.	6.63	5.24	4.03	2.65	2.01	3.21	3.20	3.51	2.99	6.67	2.14	3.78	6.58

Total for thirteen months . . . . . 52.64 inches.

## SCHEDULE OF TOOLS, ETC., OWNED BY SEWER DIVISION.

9 boats, 3 boring-tools, 3 boring-machines, 8 buggies, 1 brick-furnace, 1 cement testing-machine, 13 cleaning-wagons, 129 catch-buckets, 1 Cornish engine, 7 Concord wagons, 21 cesspool wagons, 1,585 ft. cleaning-rods, 1 caravan, 1 drill-pump, 25 derricks, 1 diagram-machine, 2 democrat wagons, 1 elevator engine, 1 electric engine, 12 express wagons, 6 engineer's levels, 5 engineer's transits, 1 furnace, 1 flather planer, 2 flushing wagons, 3,550 feet fire-hose, 7 farmer's kettles, 11 flushing-machines, 18 fire-hose nozzles, 17 hydrant goosenecks, 20 hydrant-chucks, 9 hand-carts, 2,800 feet hand-hose, 12 hand-hose nozzles, 3 horse scrapers, 1 iron planer and set tools, 2 lathes, complete, 1 marine glass, 18 measuring-rods, 1 Paine engine, 9 regulator floats, 622 feet suction-hose, 2 sewer-boats, 4 sewer-trucks, 4 self-reading rods, 1 sludge-machine engine, 1 steam-drill, 2 pontoon and 2 jumbo scrapers, 8 sleighs, 1 steam-launch, 32 shanties, 1 two-wheel truck, 11 tip-carts, 1 tow-boat, 5 Knowles pumps, No. 11; 1 Knowles pump, 14-in.; 1 Blake pump, No. 9; 1 Blake pump, 10-in., suspension; 5 Andrews pumps, 6-in.; 1 Andrews pump, 4-in.; 1 rotary pump, 6-in., submerged; 1 Granger pump, 24-in.; 1 Granger pump, 8-in.; 1 Granger pump, 4-in.; 1 Granger pump, 6-in.; 1 Weber pump, 6-in.; 1 Douglass pump, 14-in.; 22 Edson pumps, 3-in.; 3 siphon pumps, 4-in.; 2 siphon pumps, 3-in.; 2 tin hand-pumps, 1 common pump, 3 Hoadley engines on wheels, 1 Hoadley engine on platform, 2 hoisting-engines, and other miscellaneous tools necessary to do the work of the division.

## CATCH-BASIN, MANHOLE, AND PIPE STOCK.

37 stone frames, 147 catch-basin covers, iron; 111 catch-basin grates, 82 catch-basin traps, 152 catch-basin hooks, 57 catch-basin heads, 99 catch-basin gutters, 1 gutter mouth, 3 stone curbs, 170 catch-basin covers, wooden; 5,000 feet oak stock for wooden covers, 116 manhole frames, 411 manhole covers, 550 manhole steps, 14 lamp-hole frames, 16 lamp-hole covers, 14 lamp-hole grates, 12 sump-chains, 11 bridle-chains, 3 inlet pipes, 80 inlet-pipe connections, 6 inlet-pipe nozzles, 14 feet of 24-inch pipe, including branches, curves, bends, etc.; 24 feet of 20-inch pipe, including branches, curves, bends, etc.; 666.5 feet of 18-inch pipe, including branches, curves, bends, etc.; 4,781.5 feet of 15-inch pipe, including branches, curves, bends, etc.; 7,190 feet of 12-inch pipe, including branches, curves, bends, etc.; 3,645 feet of 10-inch pipe, including branches, curves, bends, etc.; 2 feet of 9-inch pipe, including branches, curves, bends, etc.; 1,820 feet of 8-inch pipe, including branches, curves, bends, etc.; 2,669 feet of 6-inch pipe, including branches, curves, bends, etc.; 12 feet of 5-inch pipe, including branches, curves, bends, etc.; 271 feet of 4-inch pipe, including branches, curves, bends, etc.; 11 feet of 2-inch pipe, including branches, curves, bends, etc.

**Sewer Division, Pumping-Station.**  
*Report of Pumping done during the Thirteen Months ending January 31, 1892.*

	ENGINE 1.		ENGINE 2.		ENGINE 3.		ENGINE 4.		Total gallons pumped.	Daily average number gallons pumped.	Daily average pounds coal used.	Per cent. water and oil.	Gallons pumped per lb. coal used.	Daily average lift in feet.	Daily average duty in ft.-lbs. per 100 lbs. coal used.	Rainfall.
	Pumping time.	Gallons pumped.	Pumping time.	Gallons pumped.	Pumping time.	Gallons pumped.	Pumping time.	Gallons pumped.								
1891.																
January	143 50	195,048,991	118 45	166,292,660	726 55	915,143,580	740 00	952,782,120	2,229,207,071	71,009,906	29,109	8.7	3,244	35.32	95,881,954	5.68
February	216 15	292,529,684	211 40	299,666,028	670 24	967,037,220	667 15	953,220,500	2,512,463,432	89,739,837	27,463	7.8	3,264	35.34	96,629,420	4.00
March	161 10	220,967,864	108 10	154,781,948	740 55	997,400,160	742 30	987,424,128	2,860,574,100	76,147,651	23,107	8.3	3,283	35.45	99,566,907	4.22
April	52 50	70,531,833	28 20	35,242,926	703 10	881,413,660	689 10	857,363,472	1,844,551,791	61,485,060	18,090	9.3	3,369	35.17	100,040,757	2.25
May	39 45	53,446,070	23 07	32,727,074	740 45	908,866,960	663 09	797,456,520	1,792,494,924	57,822,417	16,839	9.8	3,434	34.77	99,921,329	1.61
June	114 05	60,476,314	43 55	63,039,459	702 53	876,193,740	658 13	788,793,480	1,788,502,993	59,016,766	17,504	9.5	3,388	34.92	99,026,545	3.50
July	57 50	77,400,171	37 25	52,336,769	653 25	753,276,708	712 50	824,164,740	1,707,678,418	55,066,400	16,825	9.1	3,274	35.39	96,971,352	3.25
August	68 56	87,056,306	38 43	48,316,162	688 45	707,173,092	629 13	756,823,140	1,699,368,090	51,592,538	16,899	9.2	3,055	35.39	90,476,770	4.18
September	52 40	72,974,113	17 35	25,042,819	515 05	601,900,236	711 12	903,333,420	1,604,150,688	53,471,686	17,248	9.1	3,100	35.36	91,716,637	2.26
October	81 37	110,558,150	59 15	87,458,316	593 26	760,149,844	734 06	908,116,716	1,926,276,035	62,137,937	19,877	11.3	3,126	35.30	92,353,093	5.65
November	42 10	56,349,704	23 50	34,759,461	498 50	651,066,756	679 40	888,714,540	1,630,863,551	54,363,118	16,952	13.8	3,207	35.10	94,202,962	2.23
December	66 45	85,822,686	44 20	66,725,870	639 20	929,462,248	620 12	805,356,468	1,786,467,272	57,937,976	18,705	12.8	3,081	34.96	90,114,568	2.93
1892.																
January	352 00	476,784,523	215 10	335,622,480	429 20	594,519,732	712 05	1,003,621,614	2,410,446,379	77,756,319	29,149	9.9	2,668	34.62	77,286,185	3.40
Totals	1,443 53	1,859,945,208	963 15	1,403,252,012	8,204 62	10,442,699,136	8,959 34	11,487,180,888	25,193,977,244	63,749,891	20,070	9.9	3,194	35.16	94,160,866	45.16

The following is a record of sludge received in and removed from deposit-sewers for 13 months ending Jan. 31, 1892 :

	Received.	Removed.
January, 1891 . . .	331 cubic yards.	388 cubic yards.
February, " . . .	245 "	237 "
March, " . . .	888 "	237 "
April, " . . .	206 "	318 "
May, " . . .	661 "	628 "
June, " . . .	650 "	629 "
July, " . . .	212 "	545 "
August, " . . .	833 "	624 "
September, " . . .	59 "	550 "
October, " . . .	457 "	476 "
November, " . . .	584 "	476 "
December, " . . .	382 "	397 "
January, 1892 . . .	342 "	558 "
	<hr/> 5,850	<hr/> 6,063

#### PROPERTY IN CHARGE OF THE SEWER DIVISION.

Sewer yard, with buildings, at 678 Albany street.

Sewer yard, with building, on North Grove st.

Sewer yard, on Gibson street, Dorchester, with buildings.  
This is Gibson School-fund land. The buildings were erected by the Sewer Department.

Sewer yard, with shed, on Boylston street, Jamaica Plain.

Small lot of land on Stony brook, corner of Centre street, Ward 21.

Gate-house on Stony brook, Pyncheon street, built in 1889.

Lot of land on Chestnut-Hill avenue, transferred from the Street Department and not yet in use by the Sewer Department.

Sewer yard, with buildings, on Rutherford avenue, Charlestown.

Sewer yard, with buildings, cor. Paris and Marion streets.

Sewer yard, with buildings, on East Chester park, near Albany street.

A small shed on Cypress street, Ward 9, on land hired by the city.

*Summary of Sewer Construction for Five Years.*

	1887.	1888.	1889.	1890.	1891.
	<i>Feet.</i>	<i>Feet.</i>	<i>Feet.</i>	<i>Feet.</i>	<i>Feet.</i>
Built by City by Contract or Day Labor . . . . .	63,062.79	34,633.81	30,003.03	24,200.25	59,250.18
Built by Private Parties . . . . .	8,932.23	44,368.47	13,191.45	17,218.10	20,714.24
<b>Total number of feet built . . .</b>	<b>71,995.02</b>	<b>49,002.28</b>	<b>43,194.48</b>	<b>41,418.35</b>	<b>79,964.42</b>

**Oak and Tyler Streets.**

Labor . . . . .	\$6,348 92
144 double loads gravel . . . . .	281 50
26 tons coal . . . . .	120 90
Teaming . . . . .	1,975 50
Boring . . . . .	147 88
4 manhole frames and covers . . . . .	47 00
Trench-machine . . . . .	331 67
96,400 brick . . . . .	964 00
Engine-hire . . . . .	162 50
189 double loads screenings . . . . .	378 00
68½ double loads sand } . . . . .	140 60
3 tons sand }	
500½ barrels cement . . . . .	575 39
17,503 feet lumber . . . . .	264 26
767 feet pipe . . . . .	153 88
Branches, bends, etc. . . . .	42 17
Sundry supplies and repairs . . . . .	121 62
	<b>\$12,055 79</b>

*Size and Length of Sewer.*

868.98 ft., 2 ft. × 3 ft., brick.

Special appropriation . . . . .	\$10,500 00
Furnished from current expenses, Sewer Division . . . . .	1,555 79
	<b>\$12,055 79</b>

**Vine Street.**

Labor . . . . .	\$4,399 31
120 barrels cement . . . . .	141 60
49,500 brick . . . . .	383 62

*Amount carried forward,***\$4,924 53**



<i>Amount brought forward,</i>	\$4,924 53
Teaming . . . . .	275 50
3,347 feet lumber . . . . .	43 12
31½ double loads gravel . . . . .	58 95
21¾ double loads sand . . . . .	40 50
1 manhole frame and cover . . . . .	11 75
208 feet pipe . . . . .	53 03
Branches and bends . . . . .	21 92
Fuel and sundries . . . . .	13 88
	<hr/>
	<b>\$5,443 18</b>

*Size and Length of Sewer.*

447.75 ft., 3 ft. 3 in. × 3 ft. 5 in., brick.

Special appropriation.

**Sewer Outlet, D and Anchor Streets.**

*Built by Contract.*

1,950 cu. yds. earth excavation and refilling, at 90 cents . . . . .	\$1,755 00
350 lin. ft., 4 ft. × 5 ft., wooden box sewer, at \$7.78 . . . . .	2,723 00
	<hr/>
	\$4,478 00
Less amount retained . . . . .	800 00
	<hr/>
	\$3,678 00
Inspecting . . . . .	240 00
Miscellaneous . . . . .	58 17
	<hr/>
	<b>\$3,976 17</b>

Special appropriation.

**Orient-Heights Sewer. Section 1.**

*Built by Contract.*

357.20 lin. ft. earth excavation and refilling, at \$3.30 . . . . .	\$1,178 76
1,580.63 lin. ft. earth excavation and refilling, at \$2.97 . . . . .	4,694 47
1.82 cu. yds. rock excavation, at \$5 . . . . .	9 10
630 cu. yds. brick masonry, American cement, at \$4.75 . . . . .	2,992 50
586.06 cu. yds. concrete in place, at \$3.50 . . . . .	2,051 21

*Amount carried forward,*

**\$10,926 04**

<i>Amount brought forward,</i>	\$10,926 04
343.42 cu. yds. earth excavation below grade, at 80 cents . . . . .	274 74
343.42 cu. yds. gravel refilling, at 50 cents .	171 71
2.956 M ft. B.M. spruce lumber left in place, at \$12 . . . . .	35 47
1,319 lin. ft. 8-in. under-drain laid, at 15 cents,	197 85
154 house-connections, at 10 cents . . . . .	15 40

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\$11,621 21

Less amount retained . . . . . 800 00

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\$10,821 21

406,025 brick . . . . .	4,060 50
1,499 bbls. cement . . . . .	1,873 70
1,200 ft. pipe . . . . .	243 00
8 manhole frames, covers, etc. . . . .	165 84
Bends, slants, etc. . . . .	40 69
Inspecting, etc. . . . .	1,115 00
Miscellaneous . . . . .	246 16

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\$18,566 10

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*Size and Length of Sewer.*

357.21 ft., 4 ft. 6 in. × 4 ft. 9 in., brick.

1,580.63 ft., 4 ft. × 4 ft. 3 in., brick.

Special appropriation.

**Orient-Heights Sewer. Section 2.**

*Built by Contract.*

558.17 lin. ft. earth excavation and refilling, at \$2.50 . . . . .	\$1,395 42
498.40 lin. ft. 15-in. pipe laid, at \$1.30 . . .	647 92
2,244.65 lin. ft. 12-in. pipe laid, at \$1.60 . .	3,591 44
99.71 cu. yds. rock excavation, at \$5.00 . .	498 55
191.21 cu. yds. brick masonry, American cement, at \$5.25 . . . . .	1,003 85
48 lin. ft. 8-in. under-drain, at 20 cents . .	9 60
43 house-connections, at 10 cents . . . . .	4 30
260 lin. ft. pipe laid as chimneys, at 10 cents,	26 00

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\$7,177 08

Less 5% retained . . . . . 358 85

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*Amount carried forward,* \$6,818 23

<i>Amount brought forward,</i>	\$6,818 23
128,500 brick . . . . .	1,285 00
260 bbls. cement . . . . .	325 00
2,558 ft. pipe . . . . .	969 61
Branches . . . . .	427 89
Inspecting . . . . .	395 50
Manhole frames, etc. . . . .	211 10
Bends, etc. . . . .	49 44
Miscellaneous . . . . .	74 10
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	<b>\$10,555 87</b>

*Size and Length of Sewer.*

558.17 ft., 2 ft. × 3 ft., brick.

498.40 ft., 15 in., pipe.

2,244.65 ft., 12 in., pipe.

Special appropriation.

**Bennington Street (at Saratoga Street).**

Labor . . . . .	\$3,066 73
60,000 bricks . . . . .	600 00
355 barrels cement . . . . .	436 40
58 double loads sand . . . . .	99 00
609.5 double loads gravel . . . . .	1,219 00
11,830 feet lumber . . . . .	250 26
2 manhole frames and covers . . . . .	23 50
16 manhole steps . . . . .	8 80
Engine and pump hire . . . . .	57 00
Coal . . . . .	24 25
Teaming . . . . .	165 00
Miscellaneous . . . . .	97 77
	<hr/>
	<b>\$6,047 71</b>

*Size and Length of Sewer.*

241 ft., 4 ft. 6 in. × 4 ft. 9 in., brick.

12 ft., 24 in., pipe.

Furnished from current expenses, Sewer	
Division . . . . .	\$4,443 95
Special appropriation . . . . .	1,603 76
	<hr/>
	<b>\$6,047 71</b>

**Sumner and Orleans Streets.**

Labor . . . . .	\$5,520 86
203,100 brick . . . . .	2,031 00
939 barrels cement . . . . .	1,108 02
172.5 tons sand . . . . .	301 87
1,188 double loads gravel . . . . .	2,376 00
1,364 feet pipe . . . . .	225 92
Branches, bends, etc. . . . .	26 88
12,874 feet lumber . . . . .	232 78
33 tons coal . . . . .	138 93
5 iron manhole frames and covers . . . . .	58 75
18 iron manhole steps . . . . .	9 90
Trench machine and engine-hire . . . . .	600 00
Teaming . . . . .	919 50
Miscellaneous . . . . .	61 23

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**\$13,611 64**


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*Size and Length of Sewer.*484 ft., 4 ft.  $\times$  4 ft. 3 in., brick.713.90 ft., 2 ft. 2 in.  $\times$  3 ft. 3 in., brick.

Special appropriation . . . . .	\$13,000 00
Furnished from current expenses, Sewer Division . . . . .	611 64

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**\$13,611 64**


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**Bremen Street.**

Labor . . . . .	\$2,794 99
117,250 brick . . . . .	1,172 50
622 barrels cement . . . . .	733 96
85 tons sand . . . . .	148 75
1,759 loads gravel . . . . .	1,759 00
3 manhole frames and covers . . . . .	35 25
Teaming . . . . .	623 25
11,313 feet lumber . . . . .	210 32
702 feet pipe . . . . .	95 99
Branches, bends, etc. . . . .	11 61
21 tons coal . . . . .	98 22
Carson machine . . . . .	164 50
Engine-hire . . . . .	92 00
Miscellaneous . . . . .	13 05

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**\$7,953 39**


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*Size and Length of Sewer.*687 02 ft., 3 ft. 8 in.  $\times$  5 ft. 4 in., brick.

Paid from current expenses, Sewer Division.

**Porter Street.**

Labor . . . . .	\$5,171 19
210,425 brick . . . . .	2,104 25
1,067 bbls. cement . . . . .	1,259 06
2,591 loads gravel . . . . .	2,591 00
186½ tons sand . . . . .	325 94
Teaming . . . . .	915 00
9,459 ft. lumber . . . . .	172 86
1,524 ft. pipe . . . . .	285 76
Branches, slants, etc. . . . .	17 71
Coal . . . . .	196 97
Trench machine . . . . .	296 00
Engine and pump . . . . .	420 00
Manhole rings, etc. . . . .	29 00
Miscellaneous . . . . .	74 31

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**\$13,859 05**
*Size and Length of Sewer.*

560.17 feet, 3 ft. 8 in. × 5 ft. 4 in., brick.  
 756.35 feet, 2 ft. 10 in. × 4 ft. 3 in., brick.  
 168.00 feet, 2 ft. × 3 ft., brick.

Special appropriation . . . . .	\$12,000 00
Furnished from current expenses Sewer Division . . . . .	1,859 05

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**\$13,859 05**
**Rockwell and Armandine Streets.**

Labor . . . . .	\$5,488 09
122,350 brick . . . . .	1,284 66
1,009 ft. pipe . . . . .	135 02
Branches, bends, etc. . . . .	26 68
Carpentry . . . . .	13 75
250 bbls. cement . . . . .	304 00
54½ double loads sand . . . . .	98 10
2 double loads screenings . . . . .	3 00
Powder . . . . .	72 69
Blacksmithing . . . . .	206 90
8,652 ft. lumber . . . . .	193 09
14 double loads gravel . . . . .	21 00
3 manhole frames and covers . . . . .	35 25
Teaming . . . . .	222 00

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**\$8,104 23**

*Size and Length of Sewer.*300 ft., 2 ft. 4 in.  $\times$  3 ft. 6 in., brick.850 ft., 2 ft.  $\times$  3 ft., brick.

Special appropriation.

**Magnolia Street.**

Labor . . . . .	\$3,714 16
Teaming . . . . .	218 25
2 $\frac{3}{4}$ tons sand . . . . .	4 51
3,520 brick . . . . .	36 96
11 bbls. cement . . . . .	13 46
150 lbs. powder . . . . .	54 00
2,033 ft. spruce . . . . .	34 36
2 manhole frames and covers . . . . .	23 50
18 manhole steps . . . . .	9 90
681 feet pipe . . . . .	225 80
Branches, bends, etc. . . . .	46 84
Blacksmithing . . . . .	57 58
	<hr/>
	<b>\$4,439 32</b>

*Size and Length of Sewer.*

408 ft., 12 in., pipe.

Special appropriation.

**Adams, Codman, and Hutchinson Streets.**

Labor . . . . .	\$4,771 36
198,980 brick . . . . .	2,089 28
388 bbls. cement . . . . .	457 84
49 double loads sand . . . . .	93 20
795 feet drain-pipe . . . . .	160 21
Branches, bends, etc. . . . .	12 49
412 feet lumber . . . . .	6 96
Coal . . . . .	95 69
3 manhole frames and covers . . . . .	35 25
Trench machine and engine-hire . . . . .	489 05
Teaming . . . . .	349 50
Miscellaneous . . . . .	45
	<hr/>
	<b>\$8,561 28</b>

*Size and Length of Sewer.*987 feet, 2 ft. 6 in.  $\times$  3 ft., brick.

Paid from current expenses, Sewer Division.

**Bay Street, Private Land, etc.**

Labor . . . . .	\$8,913 03
361,650 brick . . . . .	3,794 82
832 bbls. cement . . . . .	983 86
43 double loads sand . . . . .	83 60
536 " " gravel . . . . .	971 75
5,791 feet drain-pipe . . . . .	2,395 04
Branches, bends, etc. . . . .	448 18
31,750 feet lumber . . . . .	559 56
35 manhole frames and covers . . . . .	411 25
Coal . . . . .	14 92
Teaming . . . . .	407 12
Piling . . . . .	533 00
Miscellaneous . . . . .	361 52

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**\$19,877 65**

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*Size and Length of Sewer.*721.88 ft., 2 ft. 4 in.  $\times$  3 ft. 6 in., brick.452.72 ft., 1 ft. 8 in.  $\times$  2 ft. 6 in., brick.

2,699.30 ft., 15 in., pipe.

1,495.15 ft., 12 in., pipe.

Special appropriation.

**Harvard and Kilton Streets.**

Labor . . . . .	\$6,806 26
Coal . . . . .	97 65
13,480 feet lumber . . . . .	257 00
Carson trench machine and engine-hire . . . . .	705 94
Carpentry . . . . .	57 50
Powder, etc. . . . .	70 12
9 manhole rings and covers . . . . .	105 75
Blacksmithing . . . . .	262 15
147,300 brick . . . . .	1,546 66
2,416 pipe . . . . .	1,007 47
Branches, bends, etc. . . . .	208 22
55 double loads and 23 tons sand . . . . .	122 00
287 bbls. cement . . . . .	345 16
10 double loads gravel . . . . .	15 00
Supplies, repairs, etc. . . . .	3 75
Teaming . . . . .	289 50
Inspector . . . . .	150 50

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**\$12,050 63**

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*Size and Length of Sewer.*

995 ft., 2 ft. × 3 ft., brick.

900 ft., 18 in., pipe.

478 ft., 15 in., pipe.

Special appropriation . . . . .	\$12,000 00
Furnished from current expenses, Sewer Division . . . . .	50 63
	<hr/>
	\$12,050 63
	<hr/>

**Sewer in Adams, Beaumont, and Burgoyne Streets.***Built by Contract.*

231.03 linear feet 18-inch pipe sewer, at \$1.50 . . . . .	\$346 55
798.83 linear feet excavating and refilling above grade of 2 ft. × 3 ft., brick sewer, at \$2.20 . . . . .	1,757 43
211.41 cubic yards brick masonry, at \$5.40 . . . . .	1,141 61
35 feet 6-inch slants, at 10 cents . . . . .	3 50
724 linear feet 6-inch under-drain, at 20 cents, . . . . .	144 80
6.39 cubic yards rock excavation, at \$5.00 . . . . .	31 95
	<hr/>
	\$3,425 84
Less 5% retained . . . . .	171 29
	<hr/>
	\$3,254 55
Inspecting . . . . .	410 00
121,100 brick . . . . .	1,271 55
320 barrels cement . . . . .	380 33
911 feet pipe . . . . .	257 20
Branches, etc. . . . .	30 71
Manhole rings and covers . . . . .	58 75
Miscellaneous . . . . .	60 69
	<hr/>
	\$5,723 78
	<hr/>

*Size and Length of Sewer.*

798.16 feet, 2 feet × 3 feet, brick.

Paid from current expenses, Sewer Division.

**Westville Street.**

Labor . . . . .	\$2,975 77
Teaming . . . . .	172 50

*Amount carried forward,***\$3,148 27**



<i>Amount brought forward,</i>	<b>\$3,148 27</b>
1,354 feet pipe . . . . .	321 20
Branches, bends, etc. . . . .	77 36
4,406 feet lumber . . . . .	74 46
22 double loads sand . . . . .	39 60
Blacksmithing . . . . .	65 00
56,500 brick . . . . .	593 25
131 barrels cement . . . . .	154 58
4 manhole rings and covers . . . . .	47 00
2 pieces C. B. curving . . . . .	7 50
	<hr/>
	<b>\$4,528 22</b>

*Size and Length of Sewer.*

700 feet of 12-inch pipe.	
211 " " 4 feet 6 inch, circular.	
158 " " 3 " 6 " "	
248 " " 3 " "	
Special appropriation . . . . .	<b>\$4,003 36</b>
Furnished from current expenses, Sewer Division . . . . .	524 86
	<hr/>
	<b>\$4,528 22</b>

**Commonwealth Avenue.**

Labor . . . . .	<b>\$7,349 19</b>
52,050 brick . . . . .	535 05
208 barrels cement . . . . .	242 22
46½ double loads sand . . . . .	93 00
36 " " gravel . . . . .	63 00
28 " " screenings . . . . .	55 50
12,621 feet lumber . . . . .	206 22
5 manhole frames and covers . . . . .	58 75
690 feet pipe . . . . .	75 60
Branches, etc. . . . .	10 06
Teaming . . . . .	729 00
Trench machine . . . . .	96 80
Engine-hire . . . . .	65 00
Salt hay . . . . .	75 00
Fuel . . . . .	63 90
Miscellaneous supplies . . . . .	131 93
	<hr/>
	<b>\$9,850 22</b>

*Size and Length of Sewer.*

1,290.48 feet, 2 feet × 3 feet, brick.	
48.31 " " 2 " × 3 " "	
72.03 " 18 " pipe.	
Special appropriation.	

**Calumet Street.***Built by Contract.*

145.47 cubic yards brick masonry, at \$13.00	.	\$1,891	11
174.31 " " concrete, " 4.65	.	810	54
1,440.50 " " rock excavated, " 4.00	.	5,762	00
155.1 linear feet 12-in. pipe laid, " .50	.	77	55

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 \$8,541 20

Previous payments . . . . . 3,687 60

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 \$1,853 60

Inspecting . . . . . 758 50

Branches, bends, etc. . . . . 17 37

Coal . . . . . 2 55

Manhole frames and covers . . . . . 35 25

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 \$5,667 27
*Size and Length of Sewer.*

472.62 feet, 2 ft. × 3 ft., brick.

Paid from current expenses, Sewer Division.

**Bacon and Raleigh Streets.**

Labor . . . . .	\$4,751	82
26,433 feet of lumber . . . . .	430	85
Teaming . . . . .	1,148	50
Coal . . . . .	65	10
Boring . . . . .	90	50
439½ bbls. cement . . . . .	524	30
84 double loads sand . . . . .	154	80
787 feet pipe . . . . .	189	36
Branches, bends, etc. . . . .	40	49
Engine-hire . . . . .	132	50
Trench machine . . . . .	207	36
88,000 brick . . . . .	886	80
144 double loads screenings . . . . .	243	75
101 " " gravel . . . . .	169	65
5 manhole frames and covers . . . . .	58	75
Iron pipe . . . . .	40	54
Supplies, blacksmithing, etc. . . . .	66	45

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 \$9,201 52

*Size and Length of Sewer.*

562.12 feet, 2 ft. × 3 ft., brick.

193.30 " 15 in., pipe.

36.33 " 12 in., "

Paid from current expenses, Sewer Division.

**Crawford and Holland Streets.**

Labor . . . . .	\$5,257 18
46,400 brick . . . . .	467 50
231 bbls. cement . . . . .	273 00
42 double loads sand . . . . .	74 80
42.5 " " gravel . . . . .	60 00
74 feet drain-pipe . . . . .	20 84
Branches, bends, etc. . . . .	11 91
21,750 feet lumber . . . . .	358 99
Manhole frames and covers . . . . .	51 72
" steps . . . . .	22 00
Teaming . . . . .	308 25
Piling . . . . .	205 80
Miscellaneous . . . . .	37 22

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**\$7,149 21**
*Size and Length of Sewer.*

570.07 feet, 1 ft. 8 in. × 2 ft. 6 in., brick.

Paid from current expenses, Sewer Division.

**Rebuilding Dorchester-Brook Sewer.**

Labor . . . . .	\$11,079 36
Coal . . . . .	351 15
Derrick, engine, etc., hire of . . . . .	917 11
Miscellaneous supplies, repairing tools, etc., . . . . .	485 83
Iron pipe, bolts, etc. . . . .	964 49
1,521 barrels cement . . . . .	1,920 02
84 feet drain-pipe . . . . .	18 93
342,225 brick . . . . .	3,422 25
67,988 feet lumber . . . . .	1,203 36
332 double loads screenings . . . . .	498 00
458½ " " sand . . . . .	806 20
41 2½ " " gravel . . . . .	603 75
Teaming . . . . .	802 00
Furnishing and driving piles . . . . .	1,572 78
7 manhole steps . . . . .	3 85
Carpentry . . . . .	7 50
175 perches stone . . . . .	437 46

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**\$25,094 04**

Special appropriation . . . . .	\$20,366 02
Furnished from current expenses, Sewer Division . . . . .	4,728 02
	<u>\$25,094 04</u>

**Dustin Street.**

Labor . . . . .	\$4,156 65
84,675 brick . . . . .	846 75
240 barrels cement . . . . .	296 50
17 loads sand . . . . .	16 66
1,213 feet pipe . . . . .	517 91
Branches, slants, etc. . . . .	130 50
2,000 feet lumber . . . . .	34 00
Teaming . . . . .	27 00
Manhole frames, etc. . . . .	94 00
Miscellaneous . . . . .	33 36
	<u>\$6,153 33</u>

*Size and Length of Sewer.*

429.60 ft., 24 in. × 36 in., brick.

359.80 ft., 20 in. × 26 in., brick.

641.66 ft., 18-in. pipe.

Special appropriation . . . . .	\$6,000 00
Furnished from current expenses, Sewer Division . . . . .	153 33
	<u>\$6,153 33</u>

**Washington and Cohasset Streets, etc.**

Labor . . . . .	\$25,834 46
711,150 brick . . . . .	8,243 80
2,129 barrels cement . . . . .	2,596 37
502.5 double loads sand . . . . .	773 40
545 " " gravel . . . . .	702 80
3,377 feet drain-pipe . . . . .	456 20
Branches, bends, etc. . . . .	70 49
44,912 feet lumber . . . . .	793 04
20 manhole frames and covers . . . . .	239 50
Coal . . . . .	101 57
Teaming . . . . .	622 40
Miscellaneous . . . . .	3,111 03
	<u>\$43,545 06</u>

*Size and Length of Sewer.*

1,988.80 ft., 2 ft. 4 in.  $\times$  3 ft. 6 in., brick.

750.25 ft., 2 ft. 2 in.  $\times$  3 ft. 3 in., brick.

1,607.65 ft., 2 ft.  $\times$  3 ft., brick.

Special appropriation.

Respectfully submitted,

H. W. SANBORN,  
*Deputy Superintendent.*

## APPENDIX E.

## ANNUAL REPORT OF THE DEPUTY SUPERINTENDENT OF THE STREET-CLEANING DIVISION OF THE STREET DEPARTMENT.

BOSTON, Feb. 1, 1892.

H. H. CARTER, Esq., *Superintendent of Streets*:

DEAR SIR: In reply to your circular of Dec. 14, 1891, in regard to the annual report, I beg leave to offer the following statement of the expenditures, income, and business of this division, together with a schedule of the appreciable property on hand, for the nine months ending Jan. 31, 1892.

When I assumed charge of the Street-Cleaning Division, I found the work being prosecuted under the direction of G. W. Forristall, of the Sanitary Division, and it was mutually understood that he was to continue keeping the record of the work done, and an account of the manner in which the money was expended, until the close of the fiscal year ending April 30, 1891.

My report, consequently, which is herein submitted, covers the period of nine (9) months ending Jan. 31, 1892.

## FINANCIAL STATEMENT.

Amount of appropriation	.	.	.	\$250,000 00
Total expenditures	.	.	\$215,464 92	
Transferred to Sewer Division,		20,000 00		
			<hr/>	235,464 92
Unexpended	.	.	.	\$14,535 08

## STREET POLICE DIVISION.

Amount of appropriation	.	.	.	\$5,000 00
Total expenditures	.	.	\$464 41	
Transferred to Central Office,		1,050 00		
Transferred to Paving Division,		3,485 59		
			<hr/>	\$5,000 00

## OBJECTS OF EXPENDITURE.

*Superintendence.*

Salary of Deputy Superintendent . . .	\$2,333 34
Office pay-rolls, including pay of clerks, draughtsman, and messengers . . .	3,516 62
Advertising, etc. . . . .	51 00
Board of horse . . . . .	230 81
Use of carriages . . . . .	21 00
Maps, plans, etc. . . . .	258 35
Printing . . . . .	398 07
Stationery . . . . .	462 05
Telephone service, etc. . . . .	79 73
Total cost of superintendence . . . .	<u>\$7,350 97</u>

## CLEANING STREETS,

*Including the Cost of Sweeping, Loading, and Removal of  
Street-dirt.*

District 1. West End . . . . .	\$15,101 67
District 2. North End . . . . .	17,412 22
District 3. South End . . . . .	16,502 09
District 4. South End . . . . .	15,943 24
District 5. Back Bay . . . . .	15,205 72
District 6. South Boston and Dorchester . .	17,239 87
District 7. Roxbury and West Roxbury . .	11,995 63
District 8. Brighton . . . . .	*
District 9. Charlestown and East Boston . .	12,008 52
Total cost of cleaning streets . . . .	<u>\$121,408 96</u>

## CLEANING GUTTERS, CROSSINGS, AND SIDEWALKS,

*Including Cost of Scraping, Loading, and Removal of Street-  
dirt.*

District 1. West End . . . . .	\$2,015 56
District 2. North End . . . . .	102 88
District 3. South End . . . . .	126 17
Amount carried forward,	<u>\$2,244 61</u>

\* In Brighton, there was no sweeping except of crossings, and the street-cleaning was confined wholly to scraping macadamized roads and gutters. The expense is given under Gutter Work.

## STREET DEPARTMENT.

371

<i>Amount brought forward,</i>				\$2,244 61
District 4.	South End	.	.	782 23
District 5.	Back Bay	.	.	2,048 19
District 6.	South Boston and Dorchester	.	.	2,008 12
District 7.	Roxbury and West Roxbury	.	.	1,713 61
District 8.	Brighton	.	.	3,738 25
District 9.	Charlestown and East Boston	.	.	1,944 75
Total cost of cleaning gutters, etc.				<u>\$14,479 76</u>

## COST OF MAINTAINING DUMPS.

District 1.	West End	.	.	\$445 03
District 2.	North End	.	.	388 15
District 3.	South End <sup>1</sup>	.	.	5 20
District 4.	South End <sup>2</sup>	.	.	95 17
District 5.	Back Bay	.	.	378 36
District 6.	South Boston and Dorchester	.	.	405 12
District 7.	Roxbury and West Roxbury	.	.	.
District 8.	Brighton	.	.	.
District 9.	Charlestown and East Boston	.	.	331 00
Total cost of dumps				<u>\$2,048 03</u>

## COST OF REMOVAL OF SNOW,

*Including Labor and Carting.*

District 1.	West End	.	.	\$976 96
District 2.	North End	.	.	854 68
District 3.	South End	.	.	741 39
District 4.	South End	.	.	880 10
District 5.	Back Bay	.	.	995 30
District 6.	South Boston and Dorchester	.	.	930 82
District 7.	Roxbury and West Roxbury	.	.	890 85
District 8.	Brighton	.	.	246 00
District 9.	East Boston and Charlestown	.	.	645 98
Total cost of removing snow				<u>\$7,162 08</u>

<sup>1</sup> District 3 used Districts 1 and 2 dumps regularly.<sup>2</sup> District 4 used Districts 1, 2, and 5 dumps regularly.



## PATROL SYSTEM.

Push-carts, including labor, teaming, etc.	\$14,582 29
Paper patrol, labor and teaming	3,696 50
Snow	679 89
Superintendence	943 41
<b>Total</b>	<b>\$19,902 09</b>

RECAPITULATION OF EXPENSES, EXCLUSIVE OF SUPERINTENDENCE, STABLE AND YARD EXPENSES, STOCK ACCOUNT, AND MISCELLANEOUS.

District.	Cost of Cleaning Streets.	Cost of Cleaning Gutters, Crossings, and Sidewalks.	Cost of Dumps.	Cost of Removing Snow.	Cost of Patrol System.	Total.
No. 1 . .	\$15,101 67	\$2,015 56	\$445 03	\$976 96	.....	\$18,539 22
No. 2 . .	17,412 22	102 88	388 15	854 68	.....	18,757 93
No. 3 . .	16,502 09	126 17	5 20 <sup>1</sup>	741 39	.....	17,374 85
No. 4 . .	15,943 24	782 23	95 17 <sup>2</sup>	880 10	.....	17,700 74
No. 5 . .	16,205 72	2,048 19	378 36	995 30	.....	19,627 57
No. 6 . .	17,239 87	2,008 12	405 12	930 82	.....	20,583 93
No. 7 . .	11,995 63	1,713 61	.....	890 85	.....	14,600 09
No. 8 . .	.....	3,738 25	.....	246 00	.....	3,984 25
No. 9 . .	12,008 52	1,944 75	331 00	645 98	.....	14,930 25
Patrol System . . . .	.....	.....	.....	.....	\$19,902 09	\$19,902 09
<b>Total . .</b>	<b>\$121,408 96</b>	<b>\$14,479 76</b>	<b>\$2,048 03</b>	<b>\$7,162 08</b>	<b>\$19,902 09</b>	<b>\$165,000 92</b>

<sup>1</sup> District 3 used the Districts 1 and 2 dumps regularly.

<sup>2</sup> District 4 used Districts 1, 2, and 5 dumps regularly.

## STABLE AND YARD EXPENSES,

*Including the Cost of the South End, West End, Roxbury, and Charlestown Stables, as follows:*

Superintendence	\$1,357 59
Labor, including cost of feeders, hostlers, broom-makers, blacksmiths, carpenters, watchmen, etc.	3,964 93
<b>Amount carried forward,</b>	<b>\$5,322 52</b>

## STREET DEPARTMENT.

373

<i>Amount brought forward,</i>	\$5,322 52
Cart and carriage repairs . . . . .	1,918 71
Carts, use of . . . . .	120 00
Coal . . . . .	14 55
Harness repairs . . . . .	214 06
Horse-shoeing . . . . .	1,675 53
Repairs on lockers . . . . .	292 46
Repairs on sweeping-machines . . . . .	940 77
Ferry-passes, car-tickets . . . . .	219 18
Tool repairs . . . . .	16 41
Veterinary services and medicines . . . . .	156 11
<b>Total stable and yard expenses . . . . .</b>	<b>\$10,890 30</b>

## STOCK ACCOUNT.

Broom-stock purchased . . . . .	\$5,870 16
Carts, carriages, etc., purchased . . . . .	6,323 50
Harnesses, horse furnishings, purchased . . . . .	3,376 78
Horses purchased . . . . .	3,200 00
Push-carts purchased . . . . .	1,117 50
Sleigh purchased . . . . .	95 00
Sweeping-machines purchased . . . . .	1,125 00
Tools . . . . .	781 58
<b>Total . . . . .</b>	<b>\$21,889 52</b>

## MISCELLANEOUS.

Holidays . . . . .	\$9,543 00
Sand . . . . .	76 50
Sundries . . . . .	963 71
<b>Total . . . . .</b>	<b>\$10,583 21</b>

## GENERAL RECAPITULATION OF EXPENSES.

*For Nine Months ending Jan. 31, 1892.*

Superintendence . . . . .	\$7,350 97
Cleaning of streets . . . . .	121,408 96
Cleaning gutters, crossings, and sidewalks . . . . .	14,479 76
Maintaining dumps . . . . .	2,048 03
Removal of snow and ice . . . . .	7,162 08

*Amount carried forward,* **\$152,449 80**

<i>Amount brought forward,</i>	\$152,449 80
Cost of patrol system . . . . .	19,902 09
Stable and yard expenses . . . . .	10,890 30
Stock account . . . . .	21,889 52
Miscellaneous . . . . .	10,583 21
<b>Total . . . . .</b>	<b>*\$215,714 92</b>

**Table showing the Cost per Mile of Cleaning the Streets in each District, exclusive of Supervision and other Expenses.**

District.	No. of Miles Cleaned.	Cost of Cleaning.	Cost of Dump.	Total Cost.	Cost per Mile.
No. 1 . . . . .	1,136.34	\$15,101 67	\$896 07	\$15,497 74	\$13 63+
No. 2 . . . . .	1,541.20	17,412 22	845 45	17,757 67	11 52+
No. 3 . . . . .	1,218.41	16,502 09	4 63	16,506 72	13 54+
No. 4 . . . . .	1,281.51	15,943 24	84 70	16,027 94	12 50+
No. 5 . . . . .	539.86	15,205 72	336 74	15,542 46	28 78+
No. 6 . . . . .	679.25	17,239 87	320 56	17,600 43	25 91+
No. 7 . . . . .	307.15	11,995 63	. . . . .	11,995 63	39 03+
No. 8 . . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .
No. 9 . . . . .	569.52	12,008 52	294 59	12,303 11	21 60+
<b>Total . . . . .</b>	<b>7,273.24</b>	<b>\$121,408 96</b>	<b>\$1,822 74</b>	<b>\$123,231 70</b>	<b>. . . . .</b>

Average cost per mile of cleaning streets in eight (8) districts, exclusive of supervision, etc., \$16.94.

Districts 5, 6, 7, and 9 are made up partly of paved streets and partly of macadamized streets, and as the cost of scraping a macadamized street and gutter is largely in excess of cleaning a paved street, the rates per mile in these districts exceed those of Districts 1, 2, 3, and 4, which are within the paved area.

\* One hundred twenty dollars of this amount offset by sale of three horses, in exchange. One hundred thirty dollars of this amount offset by sweepings dumped at L street, making the net expenses of this division, as shown in financial statement, \$215,464.92.

**Table showing the Cost per Mile of Cleaning the Streets in each District, including Supervision, Labor, Yard, and Stable Expenses.**

District.	No. Miles Cleaned.	$\frac{7}{16}$ of Total Cost of Supervision.	Cost of Cleaning.	$\frac{8}{16}$ of Yard and Stable Expense.	Total Expense.	Total per Mile.
No. 1 . . .	1,136.34	\$684 11	\$15,497 74	\$1,150 44	\$17,332 29	\$15 25
No. 2 . . .	1,541.20	783 87	17,757 67	1,818 21	19,859 75	12 88
No. 3 . . .	1,218.41	728 65	16,506 72	1,225 34	18,460 71	15 15
No. 4 . . .	1,281.51	707 50	16,027 94	1,189 80	17,925 24	13 98
No. 5* . . .	539.86	686 08	15,542 46	1,153 76	17,382 30	32 19
No. 6* . . .	679.25	776 92	17,600 43	1,306 53	19,683 88	28 97
No. 7* . . .	307.15	529 51	11,995 63	890 47	13,415 61	43 67
No. 8 . . .	.....	.....	.....	.....	.....	.....
No. 9* . . .	569.52	543 08	12,863 11	913 30	13,759 49	24 15
Total . . .	7,273.24	\$5,439 72	\$123,231 70	\$9,147 85	\$137,819 27	

\*Includes the cost of cleaning the macadamized streets in these districts.

Average cost per mile of cleaning the streets in eight (8) districts, including supervision, etc., \$18.94.

#### INCOME.

Bills deposited with the City Collector from May 5, 1891, to Jan. 30, 1892, on which payment is expected . . . . .	\$941 00
Amount credited to this division by City Collector up to date, on account of above bills . . . . .	<u>497 00</u>

#### COMPLAINTS.

Made by police . . . . .	1
Made by Paving Division . . . . .	1
In form of a petition . . . . .	1
By telephone . . . . .	2
Anonymous . . . . .	4
Individuals, personally and by letter . . . . .	26
Through Central Office . . . . .	36
Total number of complaints . . . . .	<u>71</u>

#### FORCE EMPLOYED.

Deputy Superintendent . . . . .	1
Chief Clerk . . . . .	1
Messengers . . . . .	2
Employees . . . . .	328
Entire force . . . . .	<u>332</u>

## INVENTORY OF PROPERTY IN CHARGE OF THIS DIVISION.

74 barrels for push-carts.	8 horses, driving.
76 blankets, stable.	7 hydrants.
34 blankets, street.	1 machine. boring.
191 brushes, horse.	15 machine brooms.
2 buggies, Concord.	1 machine for cutting bass.
1 buggy, Goddard.	2 market wagons.
37 carts, push.	74 oil horse-covers.
9 carts, iron.	8 scrapers, asphalt.
5 carts, McDonald, Patent steel.	589 shovels, scoops, etc.
12 carts, water.	1 sleigh.
61 carts, wooden.	12 squeegees.
67 harnesses, cart.	1 steam-box and boiler.
5 harnesses, driving.	72 surcingles.
9 harnesses, double.	16 sweeping-machines, double.
1 harness, express.	15 sweeping-machines, single.
70 horses, cart.	

In addition to the above, there is an amount of stock whose quantity is constantly varying, such as broom-stock, rattan, bass, machine-oil, cart-oil, soap, medicine, flax, broom-cord, pitch, broom-handles, coal, etc.

Respectfully submitted,

PHILIP A. JACKSON,  
*Deputy Superintendent.*

## APPENDIX F.

CITY OF BOSTON, ENGINEERING DEPARTMENT,  
50 CITY HALL, Feb. 1, 1892.

MR. H. H. CARTER, *Superintendent of Streets*:

SIR: I herewith submit the following report of the work done under my direction for your department.

Plans and profiles of streets to be paved were made, quantities estimated, and specifications prepared.

The work done is shown in the accompanying tables; the city furnished all material except paving-gravel, and generally the materials were delivered to the contractor from wharves or from city yards. In some cases the paving-blocks were delivered by the city on or in the vicinity of the work. Such of the old materials as the city could use were delivered by the contractor.

It will thus be seen that the prices contained in the tables have no comparative value, since the conditions differed on each street, some being paved, others macadamized or gravelled; also the length of haul for new supplies and for disposing of old material, and the relative quantity of each, was far from uniform.

Under seventeen contracts, 4.35 miles of street were paved at a cost, exclusive of material furnished by the city, of \$169,161.02.

The following is a brief summary of the items:

52,744 sq. yds. block paving on gravel furnished were laid at an average cost of \$1.155 per sq. yd.

9,294 sq. yds. block paving on a cement concrete base, with pitched joints, were laid at an average cost of \$2.727 per sq. yd.

15,189 sq. yds. of asphalt paving were laid; average cost, with cement concrete base, \$3.635 per sq. yd.; when the old base was used, the cost was \$2.025 per sq. yd.

31,509 linear feet of edgestones were set at an average cost of \$0.329 per linear ft.

21,372 sq. yds. sidewalk were relaid at an average cost of \$0.836 per sq. yd.

3,079 sq. yds. of flagging cross-walks were laid at an average cost of \$1.184 per sq. yd.

The specifications of one contract provided that the city

should furnish the gravel and remove the old materials. The quantities of work done under that contract have been included in the totals of work done in the above statements, but they have not been used in determining the average costs. Counts of paving-blocks used in small areas actually laid are found to be variable. The average of the largest areas where exact number of blocks used is obtainable is about 25 large and about 38 small blocks to the square yard. The cost of blocks, including culling and wharfage, is about five cents per small block, and seven and one-half cents per large block, making the cost for blocks per yard \$1.90 in each case. The small blocks came from Quincy, Mass., and were used for suburban streets; they were delivered on the work. The large blocks came mostly from Cape Ann, and were delivered on wharves.

The average cost of block paving on a gravel foundation was  $\$1.15 \times \$1.90 = \$3.05$  per sq. yd.

The work was done under somewhat severe specifications, requiring the removal of 13 inches of old material, the grading and rolling the road-bed, and the furnishing of 6 inches of new gravel. The cost of supervision and inspection is not included in the above. Details of the work done are as follows:

*A Street, South Boston*, from Broadway to First street, was paved with granite blocks on a gravel foundation, by Collins & Ham. The old surface was of cobble paving. The old cobbles were hauled to the crusher at Broadway bridge, the surplus earth to L-street extension; the new paving-blocks were hauled from the New York & New England R.R. wharf, and the edgestones and flagging from the Albany-street paving yard.

*First Street*, from New York & New England R.R. to F street, was paved with granite blocks on a gravel foundation, by Collins & Ham. The old surface was generally of gravel, with concrete patches, and one block from E street to F street was paved with cobbles. The old cobbles were hauled to the Broadway-bridge crusher, the surplus earth to the L-street dump. The new granite blocks were hauled from the New York & New England R.R. wharf and from the Bay State wharf, the edgestones and the flagging from the South End yard; the edgestones were delivered to the contractor on the street.

*Troy street*, from Harrison avenue to Albany street, was paved with granite blocks on a gravel foundation, by James Grant & Co. The old surface was of macadam, and was very hard. The cobble-stones in the gutter were hauled to the Broadway-bridge crusher, the earth and macadam to

East Chester park, between Swett street and New York & New England R.R. ; the new granite blocks, and all other new materials furnished by the city, were delivered from the Albany-street yard.

*Longwood avenue*, from Huntington avenue to Parker street, was paved with granite blocks on a gravel foundation, by James Doherty & Co. The old surface was of macadam ; the surplus earth was hauled to Parker street, near Huntington avenue ; the cobble-stones from the gutters to the Tremont-street crusher ; the Quincy paving-blocks were delivered on the street, and all other materials furnished by the city were hauled from the Albany-street yard.

*Austin street, Charlestown*, from Main street to Rutherford avenue, was paved with granite blocks on a gravel foundation, by John Turner & Co. The old surface was of macadam. The surplus material was the property of the contractor, and the cobble gutter-stones were purchased by him from the city ; the granite paving-blocks and the cross-walks were delivered to the contractor on the street, and the other materials came from the Charlestown paving yard, on Medford street.

A short section of the street in front of a church was paved with asphalt by the Barber Asphalt Paving Company.

*Fulton street*, from Richmond street to Lewis street, was paved with granite blocks on a gravel foundation, by B. F. Nay & Co. The old surface was paved with cobble-stones, which were hauled to the Broadway-bridge crusher ; the surplus earth was disposed of by the contractor ; the granite paving-blocks and all paving materials were delivered from the North End paving yard, on Commercial street.

*Columbus avenue*, from the railroad bridge to West Chester park, was nearly all resurfaced by the Barber Asphalt Paving Company. The concrete base where defective was patched, and if not found at proper grade was brought to grade, the new concrete furnished being paid for by the cubic yard. A portion of the street was patched by the company at its own expense, under a five-year guarantee given in 1887 ; a small portion of the old surface was patched. A plan has been prepared and filed with the contract showing the areas under guarantee, and the time of expiration of the same. The old material was wasted and used for filling on Parker street. The new work is to be kept in order by the company for five years under the contract.

*Bedford street*, from Chauncy to Columbia street, and *Kingston street*, from Summer to Bedford street, were



paved with granite blocks, with pitched joints on a Rosendale cement base, by H. Gore & Co.

The surface was paved, and a portion of the old blocks were used in the new work; the culls were hauled to Scotia street on the Back Bay; the surplus earth was hauled to Parker street; the new granite blocks were hauled from Wales wharf; and the other new material from the Albany-street yard.

*Dudley street*, from Washington street to Blue Hill avenue, was repaved by James Grant & Co. The old surface was partly of macadam and partly paved with granite block paving. The old blocks of suitable quality were used in repaving, and the culls were delivered to the Bird-street yard; the surplus filling was delivered on Marshfield and Shirley streets; the new Quincy granite blocks and the sidewalk bricks were delivered to the contractor on the street, and the other new material was hauled from the Albany-street yard.

*Terrace street*, from Tremont to New Heath street, was paved by A. A. Libby & Co. The old surface was of macadam, and the old material was used for surfacing several streets within a radius of one mile from Terrace street. The new Quincy blocks, the edgestones, and the sidewalk bricks were delivered on the street. The new flagging was hauled from the Albany-street yard. The joints of the paving opposite the school-house, next Tremont street, were pitched at an extra expense of seventy-three cents per square yard.

*Second street*, from B street to Granite street, and *Third street*, from A street to Second street, South Boston, were paved with granite blocks on a gravel foundation, by Collins & Ham. The old surface was cobble-stone paving, the old stones were hauled to the Broadway crusher, and the surplus excavation was hauled to the L-street extension. The new granite blocks were hauled from the New York & New England wharf, the sidewalk bricks were delivered on the street, and the flagging was hauled from the Albany-street yard.

*Tremont street*, from Scollay square to Boylston street, was paved with granite blocks on a Rosendale cement concrete base, by H. Gore & Co. The work was let in two sections, with Temple place as the point of division. The old granite blocks were delivered by the contractor on sundry streets, within one and a half miles' haul, and the surplus earth was the property of the contractor. The new granite blocks were hauled from Burnham's wharf, the paving-bricks were delivered on the street, and the flagging

in part was delivered from the Albany-street yard, and in part delivered on the street. The joints of the new paving were filled with hot screened pebbles and hot paving-pitch.

*Second street*, from Dorchester to E street, South Boston, was paved with granite blocks on a gravel foundation, by J. Doherty & Co. The old surface was of cobble paving. The old cobbles were delivered on Ninth street, opposite H street; the surplus excavation was delivered on the L-street extension. The new granite blocks were hauled from the Bay State wharf, the paving-bricks were delivered on the street, and the flagging hauled from the Albany-street yard.

*Dorchester street*, from Dorchester avenue to Ninth street, South Boston, was paved with granite blocks on a gravel foundation, by Collins & Ham. The old surface was partly paved with granite blocks and partly macadamized. The old granite blocks in good condition were used in the new work, and the culls and surplus earth were delivered by the contractor on sundry streets within half a mile, mostly on Washburn street; the old cobble gutter-stones were hauled to the Broadway crusher; the new paving-blocks were hauled from the Thompson & Baker coal wharf on Ninth street; the paving-bricks were delivered on the street, and the flagging was hauled from the Albany-street yard. The paving in front of the school-house was laid with pitched joints.

*Beacon street*, from Arlington street to Charles street, was paved from the street-railroad track to the northerly edge-stone with asphalt on a Portland cement concrete base, by the Barber Asphalt Paving Company. The gutters and tothing strip next the railroad track were paved with granite blocks, partly delivered from Burnham's wharf and partly delivered on the street; the surplus excavation was hauled to Scotia street. The remainder of the street between the same points was repaved with the old granite blocks, by J. Doherty & Co. This portion was the narrow strip under the trees, adjoining the Public Garden. The joints in the paving were filled with hot pebbles and pitch.

Tables showing the length of accepted streets in Boston, the area of roadway in each, and the area of each kind of paving or roadway construction, have been prepared for the use of the Street Department, and will be found on pp. 52, 53, and 54 of this report. These tables are an entirely new computation from the best obtainable original sources. The measurements have been principally made from careful surveys of the Surveying Department, and when information could not be obtained from original surveys, the streets have been measured. They have also been examined to determine the character of the paving, and as it is impossible to determine

at this season of the year whether a street is macadamized or simply gravelled, the tables have been checked by the district foreman and by the Deputy Superintendent of Streets. In giving lengths and areas, care has been taken to include intersections of streets but once, and the detail tables show the streets from which the intersections have been deducted. The general rule has been to include intersections as part of the principal street.

The engineering force has done considerable work of a miscellaneous character, and numerous estimates for new work have also been made.

A summary of the detailed tables, showing total lengths and areas of paving, is appended.

#### BERKELEY-STREET BRIDGE, OVER THE B. & A. R.R.

A contract was made with John Cavanagh & Co., dated October 9, 1891, for taking down the parapets and bridge seats of Berkeley-street bridge and rebuilding the same with granite masonry laid solid in cement mortar, of the dimensions required to receive the new bridge. This work is now complete, with the exception of one parapet stone which cannot be placed until the truss used for a temporary support of the telephone wires is removed.

The contract price for the work is \$2,290.

An agreement was made with the Boston Bridge Works, October 7, 1891, for removing the old bridge, for the sum of \$350. The work called for under this agreement has been completed, with the exception of the sidewalk truss carrying the telephone wires, which was moved sufficiently to allow the new bridge to be placed. As soon as the wires are in place on the bridge, this truss will be removed.

The new superstructure is a through plate girder bridge, consisting of six lines of plate girders, dividing the street into two roadways; two sidewalks and a centre walk is also used for two lines of water-pipes. The bridge is seventy-one feet long and seventy-eight feet six inches wide between centres of sidewalk girders. The four roadway girders have curved upper flanges five feet six inches deep at centres, and four feet six inches deep at ends. The two sidewalk girders are four feet six inches deep, with straight upper flanges, and are to have hand-rails on top. The floor-beams for the roadway are built beams, and for the walks are 9-inch steel I beams. The roadway and sidewalk stringers are of hard-pine, the roadway flooring-plank is of spruce, the under course being four inches thick and the upper course two inches thick. The sidewalk is planked with 2-inch hard-pine.

The contractor for the ironwork was the Boston Bridge Works, and the contract price was \$4,898.

The wooden flooring and the painting of the bridge have been done by the Bridge Division.

#### CHELSEA BRIDGE, NORTH, STEAM-POWER.

Machinery for moving both the north and south draws of Chelsea bridge by steam-power has been erected and is now ready for use. On the pier of the south draw, there is an engine-house 15×20 feet, in which is placed a double 6×12 inch engine and boiler. An endless chain passes around the turntable drum of the draw, and the power is transmitted from the engine by bevel gearing, a horizontal shaft, and sprocket wheel.

At the north draw an addition 26 × 32 feet has been made to the draw-pier on which the engine-house is placed. This draw is to be moved by means of wire ropes attached to the draw and to a 36-inch drum in the engine-house. A reversing-engine with two 6 × 12 inch cylinders will furnish the power.

At each draw a winch-head has been placed for working vessels through the draw by steam-power.

The machinery has been furnished and set up by Miller & Shaw, and the engine-houses and other woodwork was done by the Bridge Division.

#### CHELSEA BRIDGE, NORTH, FENDER-GUARD.

Plans and specifications for building a fender-guard 173 feet long at the north draw of Chelsea bridge have been made.

#### CORNWALL-STREET BRIDGE, OVER STONY-BROOK CHANNEL.

A plan and bill of material for a new bridge on Cornwall street were furnished, and the structure has been built by the Bridge Division.

The bridge has a single span, 32 feet long over all, and a total width of 40 feet, divided into a roadway of 26 feet and two sidewalks of 7 feet each. The span consists of 12 lines of trussed beams, each made of two 6 × 12 inch hard-pine sticks, trussed by a 1½-inch diameter rod. The roadway planking is of spruce, the under course being 4 inches thick and the upper, or sheathing course, being 2 inches thick. The sidewalk is planked with 3-inch planed hard-pine.

The end supports of the bridge are timber bulkheads, each having nine 10 inch  $\times$  10 inch hard-pine posts, with a 6 inch  $\times$  10 inch hard-pine sill, sunk about 9 feet into the ground, and capped with a 12 inch  $\times$  12 inch hard-pine stick.

#### HILL-STREET RETAINING-WALL.

A contract was made with Donovan & Brock, Boston, dated October 6, 1891, for building a retaining-wall at the easterly end of Hill street, on the line of Sackville street.

The wall is of granite, laid solid in cement mortar, and rests on a concrete foundation. The wall is capped with a granite coping, and has on top a close board fence 5 feet high.

Total amount paid contractor, \$1,485.

#### IRVINGTON-STREET AND YARMOUTH-STREET RETAINING-WALLS.

These walls are located one on each side of the Providence Division of the Old Colony Railroad, at the ends of Irvington and Yarmouth streets, the streets being in line with each other.

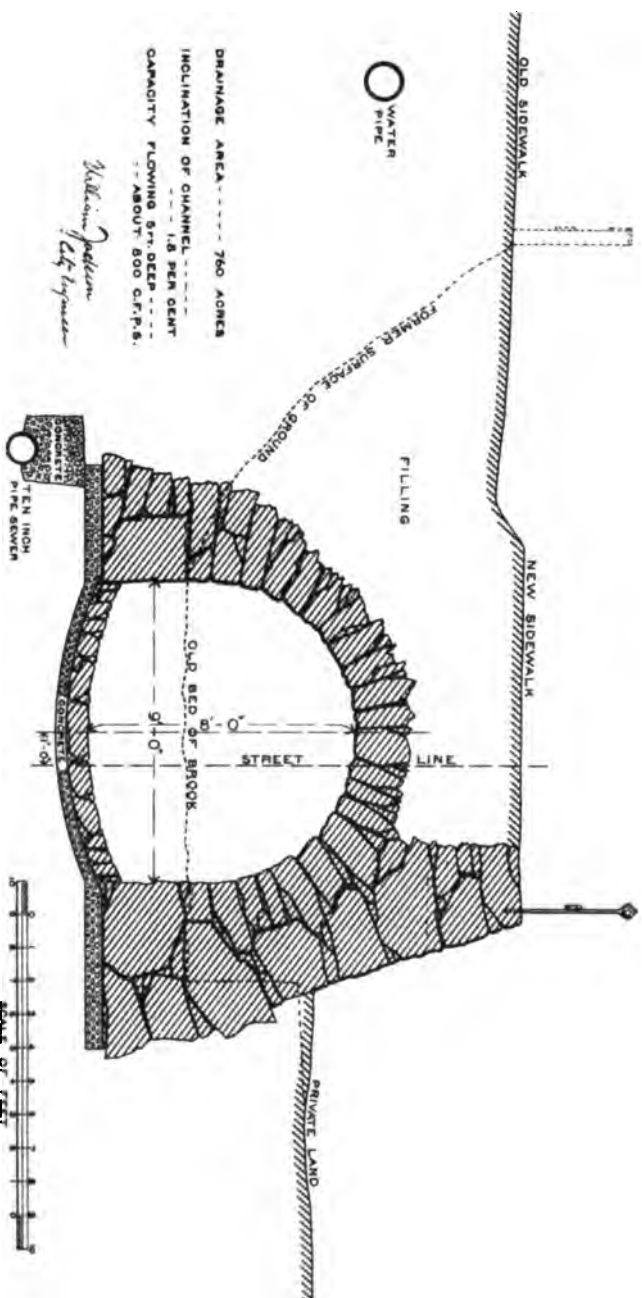
A contract was made with R. D. Shanahan, dated June 15, 1891, for building a retaining-wall at the end of Irvington street, and for adding buttresses to the retaining-wall at the end of Yarmouth street.

The wall is of granite laid solid in cement mortar, and rests upon a pile foundation with concrete cap. Granite buttresses were built at the back of the wall to afford a sufficient foundation for the piers of an iron foot-bridge. At the back of the wall on Yarmouth street, similar buttresses were built of concrete, with granite coping-stones.

The total cost of the work, including the repointing of the wall on Yarmouth street, was \$3,537.

#### IRVINGTON-STREET FOOT-BRIDGE, OVER PROVIDENCE DIVISION, OLD COLONY RAILROAD.

An iron foot-bridge has been built over the tracks of the Providence Division of the Old Colony Railroad, on the line of Irvington and Yarmouth streets. The bridge is a through bridge of the riveted bowstring type, resting upon wrought-iron piers. The tops of the piers are on a level with the floor of the bridge, and are reached by stairways from the sidewalks of each street. The stairways are of wrought iron with hard-pine treads. The bridge was built by the R. F. Hawkins Iron Works, of Springfield, Mass., under contract dated Sept. 16, 1891, at a total cost of \$1,773.



# STONY BROOK IMPROVEMENT CROSS SECTION OF NEW CHANNEL AND RETAINING WALL WASHINGTON STREET : ROSLINDALE



## L-STREET ABUTMENT.

The contract for building the south abutment of L-street bridge was let to Perkins & White, of Boston, under date of Oct. 28, 1891, for \$5,925, and calls for the completion of the work on or before June 15, 1892. At this date the piles have been driven and capped for the foundation, and the larger portion of the ballast and riprap placed.

## L-STREET BULKHEAD, SOUTH BOSTON.

Plans and specifications were made in 1890 for extending L-street bulkhead northerly from the bulkhead built in 1889; the length of bulkhead to be built being 727 feet, enclosing 328½ feet of street extension.

The contract for building the bulkhead was awarded to F. G. Whitcomb for \$7,200; the work was begun April 23 and completed July 27, 1891, at a total cost of \$7,210.

## ROXBURY-CANAL SEA-WALL.

Plans and specifications were made for building a sea-wall on Roxbury canal and adjacent dock at the Paving wharf of the Street Department.

No work has yet been done on the wall.

## STONY-BROOK IMPROVEMENT.

*Roslindale Branches.*

This improvement contemplates a channel sufficiently large to carry the rainfall from a tributary water-shed of about 1,000 acres, and will, when this improvement is completed, prevent the flooding in this vicinity during heavy rains; but until the channel has been farther extended up-stream about 300 feet, there will still be danger of occasional floods.

The work done during the past season embraced both the main branch of Stony brook at Roslindale and also a small brook flowing into it. The larger channel extends from a point on the old brook channel about 160 feet below Poplar street, through private land, and in Poplar and Washington streets, a distance of 665 feet. It is partly open and partly covered. The open portion below Poplar street is 12 feet wide, with side-walls of rubble masonry nowhere less than 6.8 feet high. It is laid on a grade of 1 foot in 100; the covered channel varies in size from 11 feet 6 inches wide × 6 feet 6 inches high to 9 feet wide × 8 feet 6 inches high. Both side-walls and the arch are of rubble masonry; the



inclinations are 1 foot in 100 feet and 1 foot in 56 feet; 22 feet of open channel, 9 feet wide, was built at the up-stream end; the bottom is paved throughout with stone or brick, and a concrete foundation extends under both walls and under the paved bottom. The smaller brook channel extends from Birch street through private lands, across Cohasset street, and again through private lands to its junction with the larger channel on the north-west side of Washington street; a total distance of 507 feet. This channel is a stone culvert 4 feet 6 inches high and 5 feet wide; it is laid on an inclination of 1 foot in 125 feet; the side-walls are of rubble with granite covering-stones; the paving is of stone; a concrete foundation extends under the side-walls and under the paved bottom.

Bids for the construction of the work were received July 20, and the contract was awarded to H. P. Nawn, the lowest bidder.

In connection with the brook channels, and during their construction, 340 feet of pipe sewer was built, with the necessary branches, manholes, etc. This sewer was necessary in order to afford drainage to houses on the westerly side of Washington street, which were cut off from the common sewer in that street by the low grade of the new channel; this work was done to much better advantage during the construction of the brook channel than would have been possible after the completion of the work. The sewer is of 10-inch Akron pipe, surrounded by concrete; it is located for a distance of 185 feet immediately outside of the walls of the brook channel, and for the remaining 155 feet, until it enters the common sewer on Washington street, is laid under the new channel, immediately beneath the concrete foundation.

#### BENNINGTON-STREET CULVERT.

Plans and estimates were made for a wooden culvert across Bennington street, between Saratoga street and Wadsworth street.

Respectfully submitted,

WILLIAM JACKSON,  
*City Engineer.*





## APPENDIX G.

FORMER SUPERINTENDENTS AND DOCUMENT  
NUMBERS OF ANNUAL REPORTS.

## Bridge Department before 1891.

*Previous to 1886 under Charge of City Engineer.*

NAME.	Year.
Bartholomew M. Young .....	1886 to 1889
James H. Nugent .....	1889 to 1891

NAME OF DOCUMENT.	For Year.	Pub. Year.	No. of Doc.
Annual Report.....	1886	1887	29
" " .....	1887	1888	26
" " .....	1888	1889	29
" " .....	1889	1890	22
" " .....	1890	1891	*

\* Published in Annual Report, Executive Department, Vol. 1.

## Paving Department before 1891.

NAME.	Year.
Enoch Patterson, Supt. Streets and Drains .....	1827 to 1831
Zephaniah Sampson, " " .....	1831 to 1846
Thomas Hunting, Superintendent .....	1846 to 1853
Alfred T. Turner, " .....	1853 to 1864
Charles Harris, " .....	1864 to 1883
Nehemiah T. Merritt, " .....	1883
James J. Flynn, " .....	1883
Charles Harris, " .....	1884
Michael Meehan, " .....	1884 to 1886
John W. McDonald, " .....	1886 to 1889
J. Edwin Jones, " .....	1889 to 1891

## Paving Department before 1891.

NAME OF DOCUMENT.	For Year.	Pub. Year.	No. of Doc.
Quarterly Report .....		1851	6
“ “ .....		1851	29
Annual Report .....	1851	1852	2
“ “ .....	1852	1853	6
“ “ .....	1853	1854	6
“ “ .....	1854	1855	5
“ “ .....	1855	1856	3
“ “ .....	1856	1857	3
“ “ .....	1857	1858	3
“ “ .....	1858	1859	5
“ “ .....	1859	1860	6
“ “ .....	1860	1861	5
“ “ .....	1861	1862	4
“ “ .....	1862	1863	3
“ “ .....	1863	1864	3
“ “ .....	1864	1865	70
“ “ .....	1865	1866	3
“ “ .....	1866	1867	6
“ “ .....	1867	1868	9
“ “ .....	1868	1869	14
“ “ .....	1869	1870	13
“ “ .....	1870	1871	12
“ “ .....	1871	1872	16
“ “ .....	1872	1873	21
“ “ .....	1873	1874	25
“ “ .....	1874	1875	27
“ “ .....	1875	1876	30
“ “ .....	1876	1877	38
“ “ .....	1877	1878	29
“ “ .....	1878	1879	24
“ “ .....	1879	1880	24
“ “ .....	1880	1881	48
“ “ .....	1881	1882	51
“ “ .....	1882	1883	47
“ “ .....	1883	1884	46
“ “ .....	1884	1885	97
“ “ .....	1885	1886	30
“ “ .....	1886	1887	16
“ “ .....	1887	1888	23
“ “ .....	1888	1889	30
“ “ .....	1889	1890	19
“ “ .....	1890	1891	*

\* Published in Annual Report, Executive Department, Vol. 1.

## Sewer Department before 1891.

NAME.	Year.
Enoch Patterson, Superintendent.....	1827 to 1831
Zephaniah Sampson, ".....	1831 to 1837
Charles B. Wells, ".....	1837 to 1856
Simeon B. Smith, ".....	1856 to 1863
William H. Bradley, ".....	1863 to 1883
Horace H. Moses, ".....	1883 to 1885
Thomas J. Young, ".....	1885 to 1887
Seth Perkins, ".....	1887 to 1889
Charles Morton, ".....	1889 to 1891

## Sewer Department before 1891.

NAME OF DOCUMENT.	For Year.	Pub. Year.	No. of Doc.
Annual Report .....	1859	1860	11
" " .....	1860	1861	12
" " .....	1861	1862	12
" " .....	1862	1863	13
" " .....	1863	1864	11
" " .....	1864	1865	5
" " .....	1865	1866	6
" " .....	1866	1867	8
" " .....	1867	1868	13
" " .....	1868	1869	11
" " .....	1869	1870	3
" " .....	1870	1871	11
" " .....	1871	1872	10
" " .....	1872	1873	13
" " .....	1873	1874	12
" " .....	1874	1875	17
" " .....	1875	1876	11
" " .....	1876	1877	13
" " .....	1877	1878	15
" " .....	1878	1879	11
" " .....	1879	1880	16
" " .....	1880	1881	19
" " .....	1881	1882	18
" " .....	1882	1883	16
" " .....	1883	1884	43
" " .....	1884	1885	
" " .....	1885	1886	58
" " .....	1886	1887	69
" " .....	1887	1888	81
" " .....	1888	1889	129
" " .....	1889	1890	14
" " .....	1890	1891	*

**Health Department before 1891.***Sanitary.*

NAME.	Year.
Ezra Forristall, Superintendent.....	1853 to 1854
Joseph W. Coburn, ".....	1854 to 1855
Ezra Forristall, ".....	1855 to 1869
George W. Forristall, ".....	1869 to 1890

**Health Department before 1891.***Sanitary.*

NAME OF DOCUMENT.	Year.	Pub. Year.	No. of Doc.
Annual Report.....	1853	1854	7
" ".....	1854	1855	6
" ".....	1855	1856	4
" ".....	1856	1857	4
" ".....	1857	1858	4
" ".....	1858	1859	4
" ".....	1859	1860	5
" ".....	1860	1861	6
" ".....	1861	1862	5
" ".....	1862	1863	5
" ".....	1863	1864	4
" ".....	1864	1865	4
" ".....	1865	1866	8
" ".....	1866	1867	7
" ".....	1867	1868	8
" ".....	1868	1869	12
" ".....	1869	1870	4
" ".....	1870	1871	10
" ".....	1871	1872	17
" ".....	1872	1873	40
Annual report from 1873 to 1884 inclusive; the Superintendent's report was embodied in the report of the Board of Health.....	1885	1886	45
Annual Report.....	1886	1887	22
" ".....	1887	1888	16
" ".....	1888	1889	23
" ".....	1889	1890	21
" ".....	1890	1891	*

\* Published in Vol. 1, Executive Report, 1891.

**Commissioners of Cambridge Bridges before 1891.**  
(West Boston, Canal, and Prison-Point.)

NAME.	Year.
Frederic W. Lincoln, Commissioner for Boston.....	May 22, 1871, to March, 1891.
Ezra Parmenter, Commissioner for Cambridge... ..	June 14, 1871, to Jan. 31, 1883.
William J. Marvin, Commissioner for Cambridge....	March 28, 1883, to present time.

**Commissioners of Cambridge Bridges before 1891.**  
(West Boston, Canal, and Prison-Point.)

NAME OF DOCUMENT.	For Year.	Pub. Year.	No. of Doc.
Annual Report.....	1871	1872	19
" " .....	1872	1873	12
" " .....	1873	1874	16
" " .....	1874	1875	23
" " .....	1875	1876	20
" " .....	1876	1877	12
" " .....	1877	1878	10
" " .....	1878	1879	8
" " .....	1879	1880	12
" " .....	1880	1881	8
" " .....	1881	1882	15
" " .....	1882	1883	15
" " .....	1883	1884	19
" " .....	1884	1885	8
" " .....	1885	1886	12
" " .....	1886	1887	19
" " .....	1887	1888	25
" " .....	1888	1889	22
" " .....	1889	1890	20
" " .....	1890	1891	*

\*Published in Vol. 1, Executive Report, 1891.







ANNUAL REPORT  
OF THE  
SURVEYING DEPARTMENT,  
FOR THE YEAR 1891.

BOSTON, February, 1892.

HON. NATHAN MATTHEWS, JR.,  
*Mayor of the City of Boston.*

SIR: The City Surveyor respectfully submits the following report for thirteen months, from Jan. 1, 1891, to Jan. 31, 1892.

The amount expended for thirteen months has been \$42,811.40.

The following is a classification of the expenses:

Salaries of the City Surveyor and thirty-eight employees . . . . .		\$38,617 08
Drawing-paper and materials . . . . .		962 07
Hardware . . . . .		35 00
Horse-hire, etc. . . . .		91 50
Stationery, note-books, etc. . . . .		258 39
Binding and repairing plans in volumes . . . . .		126 00
New instruments and repairing . . . . .		428 37

*Amount carried forward,* \$40,518 41

<i>Amount brought forward,</i>	\$40,518 41
Care of rooms, etc., Dorchester branch office .	169 04
Printing . . . . .	22 98
Incidental expenses, viz., car-fares, ferry-tolls, travelling expenses, and small supplies for office . . . . .	1,281 91
Telephone service . . . . .	300 00
Atlases of Boston, books, directories, etc. .	164 75
Lithographed maps . . . . .	87 69
Cotton cloth . . . . .	40 17
Furniture, repairs, etc. . . . .	226 45
	<hr/>
	\$42,811 40

## EMPLOYEES.

The average number of persons employed during the past year to perform the work in the City Proper, Charlestown, South Boston, East Bos- ton, Roxbury, West Roxbury, and Brighton .	32
The average number of persons employed at Dor- chester branch office . . . . .	6

Total . . . . .	<hr/> 38 <hr/>
-----------------	----------------

The average number of persons employed in 1869 .	25
" " " " 1870 .	35
" " " " 1871 .	40
" " " " 1872 .	40
" " " " 1873 .	41
" " " " 1874 .	56
" " " " 1875 .	54
" " " " 1876 .	44
" " " " 1877 .	38
" " " " 1878 .	36
" " " " 1879 .	26
" " " " 1880 .	27
" " " " 1881 .	29
" " " " 1882 .	29
" " " " 1883 .	28
" " " " 1884 .	28
" " " " 1885 .	28
" " " " 1886 .	28
" " " " 1887 .	29
" " " " 1888 .	33
" " " " 1889 .	36
" " " " 1890 .	36
" " " " 1891 .	38

### APPROPRIATIONS.

*For Financial Years.*

					Reduction.	Increase.
<sup>1</sup>	1869-70	.	.	.	\$25,000	
<sup>2</sup>	1870-71	.	.	.	38,000	\$13,000
	1871-72	.	.	.	34,000	\$4,000
	1872-73	.	.	.	32,000	2,000
<sup>3</sup>	1873-74	.	.	.	40,000	8,000
<sup>4</sup>	1874-75	.	.	.	59,000	19,000
	1875-76	.	.	.	54,000	5,000
	1876-77	.	.	.	43,000	11,000
	1877-78	.	.	.	36,176	6,824
	1878-79	.	.	.	32,000	4,176
	1879-80	.	.	.	25,000	7,000
	1880-81	.	.	.	30,000	5,000
	1881-82	.	.	.	28,000	2,000
	1882-83	.	.	.	31,000	3,000
	1883-84	.	.	.	30,000	1,000
	1884-85	.	.	.	30,000	
	1885-86	.	.	.	31,000	1,000
	1886-87	.	.	.	31,000	
	1887-88	.	.	.	32,000	1,000
	1888-89	.	.	.	33,500	1,500
	1889-90	.	.	.	35,000	1,500
	1890-91	.	.	.	38,500	3,500
	1891-92, nine months	.	.	.	29,000	

## EXPENSES.

*For Municipal Years.*

					Reduction.	Increase.
1	1869	.	.	\$23,926 75		
2	1870	.	.	30,863 42		\$6,936 67
	1871	.	.	36,489 62		5,626 20
	1872	.	.	35,764 00	\$725 62	
3	1873	.	.	38,257 05		2,493 05
4	1874	.	.	54,947 66		16,690 61
	1875	.	.	52,076 93	2,870 73	
	1876	.	.	45,171 56	6,905 37	
	1877	.	.	38,066 78	7,104 78	
	1878	.	.	33,996 37	4,070 41	
	1879	.	.	25,783 36	8,213 01	
	1880	.	.	25,984 48		201 12

<sup>1</sup> First year after office was separated from City Engineer's office.

<sup>2</sup> Increased, on account of annexation of Roxbury.

- Increased, on account of annexation of Roxbury.  
 " " " " Dorchester.

Charlestown, Brighton, and W. Roxbury.

			Reduction.	Increase.
1881	.	.	\$28,692 47	\$2,707 99
1882	.	.	29,770 97	1,078 50
1883	.	.	29,693 15	\$77 82
1884	.	.	30,408 87	715 72
1885	.	.	29,892 93	515 94
1886	.	.	31,445 90	1,552 97
1887	.	.	30,979 51	466 39
1888	.	.	33,903 33	2,923 82
1889	.	.	34,825 71	922 38
1890	.	.	37,031 84	2,206 13
1891-2, thirteen				
months	.	.	42,811 40	

The following plans and profiles have been made in this department during the year :

#### BOSTON PROPER.

*Batterymarch street.* — Plan and profile of edgestone, from Water to Broad street.

*Belvidere street.* — Plan for sidewalk assessment, from West Chester park to Dalton street.

*Belvidere and Dalton streets.* — Plan of land purchased by city for Mechanic Arts High School lot.

*Board alley.* — Plan and profile, from Hanover to North street.

*Bothnia street.* — Plan for sidewalk assessment, from Belvidere to Boylston street.

*Bowdoin street.* — Accident plan at No. 42.

*Boylston street.* — Accident plan at No. 48.

*Boylston street.* — Accident plan at the corner of Charles street.

*Boylston street.* — Plan showing street fronts, between Tremont street and Park square.

*Bristol street.* — Plan of lot for Fire Department.

*Bristol street.* — Plan and profile with established grade, from Harrison avenue to Albany street.

*Broadway.* — Accident plan near Albany street.

*Bromfield street.* — Plan showing street fronts, between Washington and Tremont streets.

*Cambria street.* — Plan for sidewalk assessment, from Bothnia to Dalton street.

*Cambridge street.* — Plan and profile with grade, from Charles to Staniford street.

*Camden street.* — Plan for sidewalk assessment, from Tremont street to Boston & Providence R.R.

- Central Wharf.* — Plan and profile with grade, for proposed laying out, from India street to Atlantic avenue.
- Chandler street.* — Plan and profile with grade, between Tremont and Berkeley streets.
- Charles street.* — Plan and profile of edgestone with grade, from Pinckney to Cambridge street.
- City Hall avenue.* — Accident plan near School street.
- Clarendon street.* — Accident plan at corner of Boylston street.
- Columbus avenue.* — Plan and profile of edgestone, from West Chester park to Northampton street.
- Dover street.* — Plan and profile, from Harrison avenue to Old Colony R.R.
- East Concord street.* — Plan for sidewalk assessment, from Albany street to Harrison avenue.
- East Newton street.* — Plan for sidewalk assessment, from Albany street to Harrison avenue.
- Eliot street.* — Accident plan at No. 114.
- Essex street.* — Accident plan between South and Lincoln streets.
- Federal street.* — Auction plan of "City Pipe Yard," as sold.
- Groton street.* — Plan of estate No. 11, purchased for enlargement of school-house yard; also showing estate No. 9.
- Harrison avenue.* — Accident plan at No. 176.
- Harrison avenue.* — Plan of new engine-house lot between Harvard and Bennet streets, for Public Building Department.
- Kennard avenue.* — Plan and profile from Allen to Poplar street, showing widening near Allen street, with grade.
- Lewis street.* — Accident plan at corner of North square.
- Lucas street.* — Plan and profile with grade, from Middlesex street to Shawmut avenue.
- Malcolm street.* — Plan and profile of laying out with established grade.
- Market street.* — Plan and profile of edgestone, from Portland to Canal street.
- Marshall street.* — Accident plan at corner of Creek square.
- Moon-street court.* — Plan and profile for proposed laying out with grade, from Moon to North street.
- North square.* — Plan and profile of curbstone near North street.
- North square.* — Plan of relocation near North street.
- North Margin street.* — Plan and profile of extension with grade to Stillman street.
- Oak street.* — Accident plan at No. 12.
- Parkman street.* — Accident plan near Blossom street.

- Salem street.* — Accident plan at corner of Prince street.  
*School street.* — Accident plan at corner of Province street.  
*Scotia street.* — Plan for sidewalk assessment, from Belvidere to Falmouth street.  
*South Market street.* — Accident plan at No. 24.  
*Stoughton street.* — Plan for sidewalk assessment, from Albany street to Harrison avenue.  
*Tremont street.* — Plan and profile, with cross-sections, from Scollay square to Boylston street, showing sidewalks, edgestones, railway tracks, etc.  
*Union Park street, Waltham street, and Harrison avenue.* — Plan of triangular lot at junction of, proposed to be purchased by the city for a park.  
*Washington street.* — Accident plan at No. 1108.  
*Washington street.* — Accident plan at No. 616.  
*Watson street.* — Plan for sidewalk assessment.

## SOUTH BOSTON.

- Alger street.* — Plan and profile of proposed laying out, from Dorchester avenue to Dorchester street.  
*D street.* — Accident plan at No. 101.  
*Dorchester street.* — Plan and profile showing curb and cross-sections, between Broadway and G street.  
*E street.* — Accident plan at No. 290.  
*East First street.* — Plan for sidewalk assessment, from No. 475 to I street.  
*East Fourth street.* — Accident plan at No. 847.  
*East Fourth street.* — Plan and profile showing curb and cross-sections, from L to N street.  
*East Ninth street.* — Plan for sidewalk assessment, from H to N street.  
*East Third street.* — Accident plan at No. 435.  
*East Third street.* — Plan and profile showing curb and cross-sections, from G to H street.  
*Gustin street.* — Plan for sidewalk assessment, from West Ninth street to Old Colony Railroad.  
*L street.* — Plan and profile showing curb and cross-sections, from East Broadway to East Fourth street.  
*L street.* — Plan and profile from East First street to "reserved channel."  
*P street.* — Plan and profile showing curb and cross-sections, from East Fourth to East Third street.  
*Preble street.* — Plan for sidewalk assessment, from Rogers street to O. C. R.R.  
*Tudor street.* — Plan and profile with grade, from B to C street, revised.

*Ward street.* — Plan and profile showing revised grade, from Preble street to Ward court.

*Ward street.* — Plan for sidewalk assessment, on westerly side, from No. 39 to Preble street.

*Washburn street.* — Plan for sidewalk assessment, from Dorchester avenue to Boston street.

*West First street.* — Plan and profile (unfinished), from Colton to C street.

*West Fourth street.* — Plan and profile, from Dorchester avenue to Fort Point channel.

*West Seventh street.* — Accident plan at No. 175.

*West Sixth street.* — Plan for sidewalk assessment, on north-easterly side, near No. 44.

#### EAST BOSTON.

*Belmont square.* — Plan showing dimensions for curbing.

*Bennington street.* — Plan for sidewalk assessment, on south-erly side, from Moore to Byron street.

*Byron street.* — Plan and profile with grade, from Saratoga to Pope street, revised.

*Central square.* — Plan showing dimensions for curbing.

*Falcon street.* — Plan and profile of laying out with grade, from Meridian to Putnam street.

*Jeffries street.* — Plan for sidewalk assessment, from Maver-ick to Marginal street.

*Marginal street.* — Plan for sidewalk assessment, from No. 278 to Jeffries street.

*Maverick square.* — Plan showing dimensions for curbing.

*Maverick street.* — Plan and profile (unfinished), from Paris to Cottage street.

*Morris street.* — Plan for sidewalk assessment, from Marion to Brooks street.

*Paris street.* — Plan showing land proposed to be taken by city, on north-westerly side, between Maverick and Meridian streets, for enlarging yard of Austin school-house lot.

*Putnam street.* — Plan for sidewalk assessment, on north-easterly side, south-east of Bennington street.

*Terrace place.* — Plan and profile of proposed laying out with grade.

#### BOSTON HARBOR.

*Long Island.* — Plan of hospital site for Architect's Depart-ment.

#### CHARLESTOWN.

*Adams street.* — Plan for proposed widening at corner of Common street.



*Bunker Hill street.* — Plan and profile from Elm to Sackville street.

*Bunker Hill, Vine, and Moulton streets.* — Plan of estates at junction of, proposed to be taken by city.

*Boyle street.* — Plan and profile for laying out with grade.

*Concord street.* — Accident plan.

*Green street.* — Accident plan.

*Wallace court.* — Plan for proposed extension to Chestnut street.

#### ROXBURY.

*Albany street.* — Plan and profile of edgestone, from Eustis to Hunneman street.

*Albany street.* — Plan for sidewalk assessment, from Hampden to Hunneman street.

*Armstrong street.* — Plan and profile showing buildings on south side.

*Cherry street.* — Plan and profile of extension with established grade, to Dalmatia street.

*Dacia street.* — Plan and profile of extension with established grade, from Dewey to Dalmatia street.

*Dalmatia street.* — Plan and profile of laying out with established grade, from Blue Hill avenue to Howard avenue.

*Dudley street.* — Plan of widening on southerly side, between Vine street and Mt. Pleasant avenue.

*Dunmore street.* — Plan for sidewalk assessment, from Hampden to Magazine street.

*Eaton court.* — Plan and profile of proposed laying out with grade, from Cedar street to Merton place.

*Gore avenue.* — Accident plan at No. 9.

*Grainger street.* — Plan and profile of proposed laying out with grade, from Elmore to Kingsbury street.

*Hamerton street.* — Plan and profile of proposed laying out with grade, from Harold to Crawford street.

*Harold street.* — Plan for sidewalk assessment, from Munroe to Townsend street.

*Hartwell street.* — Plan and profile with grade, for proposed laying out.

*Haskins street.* — Plan for sidewalk assessments, from Rugles to Vernon street.

*Heath street.* — Accident plan at corner of Mulvey avenue.

*Holland street.* — Plan and profile of proposed laying out with grade, from Harold to Crawford street.

*Holworthy street.* — Plan and profile of proposed laying out with grade, from Walnut avenue to Harold street.

*Kensington street.* — Accident plan near Elmore street.

- Kingsbury street.* — Plan and profile with revised grade, from Shawmut avenue to Grainger street.
- Linden Park street.* — Accident plan at No. 13.
- Merton place.* — Plan and profile of proposed laying out with grade, from Centre street to Eaton court.
- Moreland street.* — Plan and profile of laying out with established grade, from Blue Hill avenue to Dennis street.
- Mozart street.* — Plan and profile, on easterly side, at Armstrong street.
- Parker street.* — Plan for sidewalk assessment, from Station street to Huntington avenue.
- Pyncheon street.* — Plan of land at Stony Brook gate-house, for Architect's Department.
- Pyncheon street.* — Accident plan, from No. 80 to No. 90.
- Shirley street.* — Plan for sidewalk assessment, from Dudley to George street.
- Sunnyside terrace.* — Plan and profile for laying out with grade.
- Thornton street.* — Plan of land purchased by city for Primary school-house lot.
- Walden street.* — Plan for sidewalk assessment.
- Walnut avenue.* — Plan of discontinuance near Cobden street.
- Warren street.* — Plan of Roxbury High School building and lot, for Public Buildings Department.
- Whitney street.* — Plan and profile of widening with grade, between Conant and Smith streets.

## DORCHESTER.

- Adams and Codman streets.* — Plan showing portion of street at junction of, enclosed with edgestone.
- Adams street and Dorchester avenue.* — Plan showing location of street lines at Field's Corner.
- Ashmont street.* — Plan for sidewalk assessment, between Dorchester avenue and Washington street.
- Bath avenue.* — Plan and profile of proposed laying out with grade, from Savin Hill avenue to Springdale street.
- Beale street.* — Plan and profile of proposed laying out with grade, from Dorchester avenue to Shawmut Branch R.R.
- Blue Hill avenue.* — Plan of proposed widening, from Grove Hall to Mattapan, compiled.
- Blue Hill avenue.* — Plan of widening at Morton street.
- Bowdoin avenue.* — Plan of land on northerly side, near Hawes avenue, purchased by the city for Grammar school-house lot.

- Cunningham street.* — Plan and profile of proposed laying out with grade, from Hartford street to Howard avenue.
- Dacia street.* — Plan and profile of proposed laying out with grade, from Dewey to Brookford street, revised.
- Dorchester avenue.* — Plan and profile, from Field's Corner to Lower Mills.
- Dorchester avenue.* — Plan and profile from Gibson to Park street.
- Dorchester avenue.* — Plan showing cross-sections of street at Park street.
- Dorset street.* — Plan for sidewalk assessment.
- Dudley street.* — Plan and profile with proposed grade under the N. Y. & N. E. R.R., from Folsom to Virginia street.
- Gallatin street.* — Plan and profile of proposed laying out with grade, from Codman to Milton street.
- Geneva avenue.* — Plan of land on the southerly side, near the N. Y. & N. E. R.R., proposed to be purchased by the city for addition to Grammar school-house lot on Bowdoin avenue.
- Glen road.* — Plan and profile of proposed laying out with grade, from Erie street to the "Old road."
- Granger street.* — Plan for proposed extension to Dorchester avenue, compiled.
- Granite avenue.* — Plan and profile with grade, from Adams street to Neponset river.
- Hall's court.* — Plan and profile of proposed laying out and extension with grade, from Adams street to Dorchester avenue.
- Harbor View street.* — Plan and profile of proposed laying out with grade, from Dorchester avenue to Newport street.
- Harbor View street.* — Plan and profile of proposed laying out with grade, from Newport to Sydney street.
- Harvard street.* — Plan of proposed widening, revised, from School street to Harvard avenue.
- Harvest street.* — Plan and profile of proposed laying out with grade, from Dorchester avenue to Boston street.
- Harvest street.* — Plan for sidewalk assessment.
- Howard avenue.* — Plan and profile of proposed relocation with revised grade, from Dudley to Quincy street.
- Howell street.* — Plan and profile of proposed laying out with grade, from Boston street to Dorchester avenue.
- Judson street.* — Plan and profile of proposed laying out and extension with grade, from West Cottage street to Dromey avenue.
- Leyland street.* — Plan and profile of proposed laying out with grade, from Burgess to Cottage street.

- McLellan avenue.* — Plan and profile of proposed laying out with grade, from Erie street to "Old road."
- Milton street.* — Plan and profile of proposed laying out with grade, from Adams to Gallatin street.
- Minot street.* — Plan and profile with grade, from Adams street to Neponset avenue.
- Minot street.* — Plan for sidewalk assessment.
- Neponset avenue.* — Plan for sidewalk assessment, from Minot street to Tileston place.
- Nonquit street.* — Profile.
- Ocean street.* — Plan for sidewalk assessment.
- Oleander street.* — Plan and profile of proposed laying out and extension through Baker place, with grade, from Alexander to Bird street.
- Payson avenue.* — Plan and profile, from Glendale to Hancock street.
- Rockdale street and Savin Hill avenue.* — Plan and profile with grade, east of O. C. R.R., and near bridge over same.
- Savin Hill avenue.* — Plan and profile with grade, from Tuttle avenue to Grampian way.
- School street.* — Plan and profile from Harvard to Washington street.
- Shelton street.* — Plan and profile of proposed extension with grade, to Wrentham street.
- Talbot avenue.* — Plan and profile of proposed extension with grade, from Washington street to Dorchester avenue at Ashmont station.
- Topliff street.* — Plan and profile of proposed laying out with grade, from Bowdoin to Westville street, revised.
- Tuttle street.* — Plan and profile of proposed laying out with grade, from Savin Hill avenue to Hartland street.
- Van Winkle street.* — Plan and profile of proposed laying out with grade, from Dorchester avenue to Shawmut Branch R.R.
- Washington street.* — Profile from Norfolk street to Milton Lower Mills.
- Washington street.* — Plan of land on easterly side, opposite Consumptives' Home, proposed to be purchased by the city for Fire Department for ladder-house lot.
- Winter street, Parish street, and East street.* — Plan of land taken from "Proprietors of Lyceum Hall" for Primary school-house lot.
-

## WEST ROXBURY.

- Ballard street.* — Plan and profile of proposed laying out with grade, from Centre to Custer street.
- Beech street.* — Plan of land near Washington street, proposed to be purchased by city for a Primary school-house lot.
- Brook street.* — Plan and profile of proposed laying out with grade, from Florence to Sycamore street.
- Burroughs street.* — Plan of land near Centre street, purchased by city for a school-house lot.
- Canterbury street.* — Plan of land at corner of Sharon street, purchased by city for Primary school-house lot.
- Canterbury street.* — Topographical plan of Austin Farm, for Architect's Department.
- Child street.* — Plan and profile of proposed laying out with grade, from South to Lee street.
- Clive street.* — Plan for sidewalk assessment.
- Custer street.* — Plan and profile of proposed extension with grade, from Goldsmith to Ballard street.
- Danforth street.* — Plan for sidewalk assessment, from Boylston to Paul Gore street.
- Egleston street.* — Plan for sidewalk assessment.
- Farrington street.* — Plan and profile of proposed laying out with grade, from Anawan avenue to Clement avenue.
- Florence street.* — Plan of, between Hyde Park avenue and Boston & Providence R.R.
- Forest Hills street.* — Plan and profile, from Washington to Morton street.
- Gardner street.* — Plan of land near Baker street, purchased by city for a school-house lot.
- Glen road.* — Plan and profile from Washington street to Franklin park.
- Greenwood avenue.* — Plan and profile of proposed laying out and widening with grade.
- Goldsmith street.* — Plan and profile of proposed laying out with grade, from Centre to Custer street.
- Henshaw street.* — Plan and profile of proposed laying out with grade, from Centre to Carl street.
- Henshaw street.* — Plan of land near Centre street, purchased by city for Grammar school-house lot.
- Kenneth street.* — Plan and profile of proposed laying out with grade.
- La Grange street.* — Plan and profile with proposed grade, from Weld street to Newton line.
- Peter Parley street.* — Plan and profile of proposed extension with grade, from Forest Hills to Washington street.

- Prospect street.* — Plan and profile of proposed laying out with grade, from Birch to Brandon street.
- Ridge street.* — Plan and profile of proposed extension with grade, from Sherwood to Sycamore street.
- Sylvia street.* — Plan and profile of proposed laying out with grade, from Washington to Forest Hills street.
- Symmes street.* — Plan for sidewalk assessment.
- Tappan street.* — Plan and profile of proposed laying out with grade.
- Walk Hill street.* — Plan and profile, from Hyde Park avenue to Wachusett street.
- Weldon street.* — Plan and profile of proposed laying out with grade, from Hyde Park avenue to Forest Hills cemetery.
- Wenham street.* — Plan and profile of proposed laying out with grade, from Weldon to Walk Hill street.
- Woodside avenue.* — Plan and profile, from Washington to Forest Hills street.
- Yale street.* — Plan and profile, from Wenham to Wachusett street.

## BRIGHTON.

- Andrews road.* — Plan and profile of proposed laying out with grade, from Coolidge road to Holland road.
- Bigelow street.* — Plan and profile of proposed extension with grade, to Brooks street.
- Blaine street.* — Plan and profile of proposed laying out with grade, from Braintree to Hano street.
- Bradbury street.* — Plan and profile of proposed laying out with grade, from Franklin to Mansfield street.
- Cambridge street.* — Plan and profile with established grade, from North Harvard street to Charles river.
- Cambridge, Sparhawk, and Murdock streets.* — Plan of triangular lot, proposed to be purchased by the city for a park.
- Coolidge road.* — Plan and profile of proposed laying out with grade, from Mansfield to North Harvard street.
- Eglewood avenue.* — Plan and profile with grade, from Chestnut Hill avenue to Brookline town line.
- Evergreen cemetery.* — Plan of portion of, with new lots.
- Hano street.* — Plan and profile of proposed laying out with grade, from Braintree street to bend.
- Haskell road.* — Plan and profile of proposed laying out with grade, from Coolidge road to Holland road.
- Holland road.* — Plan and profile of proposed laying out with grade, from Royal road to North Harvard street.

- Home avenue.*—Plan and profile of proposed laying out with grade, from North Harvard to Windom street.
- Homer road.*—Plan and profile of proposed laying out with grade, from Coolidge road to Holland road.
- Menlo street.*—Plan and profile of proposed laying out with grade, from Henshaw to Sparhawk street.
- Rodney street.*—Plan and profile of proposed laying out with grade, from Cambridge to North Beacon street.
- Royal road.*—Plan and profile of proposed laying out with grade, from Cambridge street to Coolidge road.
- Seattle street.*—Plan and profile of proposed laying out with grade, from Cambridge street to Home avenue.
- Sorrento street.*—Plan and profile of proposed laying out with grade, from Cambridge street to Home avenue.
- Tremont street.*—Accident plan.
- Waverly street.*—Plan of land at corner of Mackin street, purchased by city for a school-house lot.
- Western avenue.*—Plan and profile of proposed relocation with grade, from Waverly street to Watertown line.
- Westford street.*—Plan and profile of proposed laying out with grade.
- Wilton street.*—Plan for sidewalk assessment.
- Windom street.*—Plan and profile of proposed laying out with grade, from Cambridge street to Home avenue.
- Wirt street.*—Plan and profile of proposed laying out with grade, from Cambridge to Henshaw street.

A large number of copies of plans by other surveyors have also been made during the year, and placed on file in the central and Dorchester branch offices.

The foregoing statement of surveys, plans, etc., shows only a portion of the work performed during the year in this department. Much of the work is of a miscellaneous nature, such as the giving of grades, and lines of streets, surveys, and levels, and plans for the Street, Public Building, Public Land, Architect's, Inspector of Buildings', Police, Law, Fire, and other departments, measurement of contractors' work for the Street Department, drawing plans, and writing descriptions of land for the city conveyancers, etc. This department is also required to make many surveys and plans, during the year, for suits that are brought against the city, and tried by the City Solicitor.

The following list includes all street releases made in the office of the City Surveyor from January 1, 1891, to

May 19, 1891 ; since May 19, 1891, they have been prepared in the office of the Board of Street Commissioners :

Boston Proper	.	.	.	.	.	.	.	4
South Boston .	.	.	.	.	.	.	.	2
East Boston .	.	.	.	.	.	.	.	1
Roxbury	.	.	.	.	.	.	.	3
Dorchester	.	.	.	.	.	.	.	4
West Roxbury	.	.	.	.	.	.	.	4
Brighton	.	.	.	.	.	.	.	5
								<hr/>
								23



## PLANS

IN SURVEYING DEPARTMENT, JANUARY 31, 1892.

OFFICE AT CITY HALL.

Indexed.	General Head under which Classified.	Number of Plans.
Vol. A . . . . .	Plans of estates (lithographed) . . . . .	219
" B . . . . .	" " " " . . . . .	180
" C . . . . .	" " " " in Brighton . . . . .	27
" D . . . . .	" " " " in West Roxbury . . . . .	50
" E . . . . .	" " " " . . . . .	15
" 1 to 13 <sup>1</sup> . . . . .	" " " widenings, etc. . . . .	664
" { 14, 15, 16, } and 17 } . . . . .	" " " . . . . .	505
" 18 . . . . .	School-house and miscellaneous plans . . . . .	95
" 19 . . . . .	Plans from actual survey in City Proper . . . . .	130
" 20 . . . . .	Profiles of City Proper and Boston Harbor, and ancient plans, . . . . .	91
" 21 . . . . .	Plans and profiles of streets in East Boston, 1849 . . . . .	45
" 22 . . . . .	" " " " " " " " 1868 . . . . .	45
" 23 . . . . .	" " " " " " " " South Boston, 1848 . . . . .	27
" 24 . . . . .	" " " " " " " " 1890 . . . . .	30
" 25 . . . . .	" " " " " " " " at South End . . . . .	21
" 26 . . . . .	" " " " " " " " in Church and Suffolk st. Districts . . . . .	38
" 27 . . . . .	" " " " " " " " various streets . . . . .	16
" 28 . . . . .	" " " " " " " " streets at South End . . . . .	15
" 29 . . . . .	Miscellaneous plans, estates, etc. . . . .	60
" 30 . . . . .	" " " " " " " " . . . . .	97
" 31 . . . . .	Official plans from 1851 to 1854 . . . . .	103
" 32 . . . . .	Plans of estates . . . . .	110
" 33 . . . . .	" " " . . . . .	131
" 34 . . . . .	" " " . . . . .	108
" 35 . . . . .	" " " . . . . .	256
" 36 . . . . .	" " " . . . . .	118
" 38 } " 39 } . . . . .	Hale's plans of the streets in Boston, 1819 . . . . .	176
" 40 . . . . .	Plans of estates . . . . .	66
" 41 . . . . .	" " " . . . . .	404
" 42 . . . . .	Ancient plans of estates in South Boston, etc. . . . .	46
" 43 . . . . .	Sectional plans of city lands at South End . . . . .	24
	<i>Carried forward</i> . . . . .	<u>4,020</u>

<sup>1</sup> Vol. 8 is a set of Architect's plans, and has been transferred to the City Architect.

## PLANS

IN SURVEYING DEPARTMENT, JANUARY 31, 1892. — *Continued.*

Indexed.	General Head under which Classified.	Number of Plans.
	<i>Brought forward</i> . . . . .	4,020
Vol. 44 . . . . .	Plans of estates in Roxbury . . . . .	77
" 45 . . . . .	" " " " " . . . . .	70
" 46 . . . . .	" " " " " . . . . .	80
" 47 . . . . .	" " widenings in Roxbury . . . . .	50
" 48 . . . . .	" " " etc., in Roxbury . . . . .	140
" 49 . . . . .	" " " " " " . . . . .	73
" 50 . . . . .	Third Parish and Grammar School lands in Roxbury . . . . .	57
" 51 . . . . .	Plans of widenings in Roxbury . . . . .	59
" 52 . . . . .	Plans of city lands and widenings in Roxbury . . . . .	92
" 53 . . . . .	Profiles of streets in Roxbury . . . . .	76
" 54 . . . . .	" " " " " . . . . .	87
" 55 . . . . .	" " " " " . . . . .	42
" 56 . . . . .	" " " " " . . . . .	56
" 57 . . . . .	Plans of widenings in Brighton . . . . .	25
" 58 . . . . .	" " estates in Brighton . . . . .	115
" 59 . . . . .	" " " " " . . . . .	74
" 60 . . . . .	" " city property, etc., in Brighton . . . . .	18
" 61 . . . . .	" " widenings in West Roxbury . . . . .	75
" 62 . . . . .	" " " " " " . . . . .	44
" 63 . . . . .	Profiles of streets " " " . . . . .	58
" 64 . . . . .	Plans of city property, etc., in West Roxbury . . . . .	27
" 65 . . . . .	" " estates, etc., in West Roxbury . . . . .	199
" 66 . . . . .	" " " " " " . . . . .	217
" 67 . . . . .	" " " " " " . . . . .	73
" 68 . . . . .	" " " " " " and Brighton . . . . .	152
" 69 . . . . .	" " " " . . . . .	140
" 70 . . . . .	" " " " . . . . .	157
" 71 to 82 . . . . .	Charlestown plans, in bound volumes, showing street-widenings and estates . . . . .	626
" 83 . . . . .	Charlestown street surveys . . . . .	229
" 84 . . . . .	Miscellaneous plans . . . . .	106
" 85 . . . . .	Plans of estates in Roxbury . . . . .	485
" 86 . . . . .	" " " " " . . . . .	18
" 87 . . . . .	" " " etc. . . . .	153
	<i>Carried forward</i> . . . . .	7,970

## PLANS

IN SURVEYING DEPARTMENT, JANUARY 31, 1892. — *Continued.*

Indexed.	General Head under which Classified.	Number of Plans.
	<i>Brought forward</i> . . . . .	7,970
Vol. 88 . . . . .	Plans of estate, etc. . . . .	23
In Drawer A . . . . .	Plans of Boston from 1777 to 1881 . . . . .	36
" Cases CC . . . . .	Miscellaneous rolled plans . . . . .	615
" Drawer E . . . . .	Plans from surveys in City Proper . . . . .	502
" " F . . . . .	Plans and profiles from surveys in City Proper and Roxbury . . . . .	574
" " G . . . . .	South Boston plans and profiles . . . . .	327
" " H . . . . .	East Boston plans and profiles . . . . .	128
" " L . . . . .	Official plans, profiles, etc. . . . .	2,382
" " M . . . . .	Copies of plans by other surveyors . . . . .	321
" " N . . . . .	Plans of city lands . . . . .	190
	4 vols. tracings of plans and profiles . . . . .	632
In Drawers . . . . .	" " " . . . . .	281
Vol. I. to LIV. . . . .	Copies of official plans indexed in Vol. 31 and Drawer L . . . . .	2,460
	Other plans in bound volumes . . . . .	1,400
	Miscellaneous plans of the Back Bay Commission in portfolio . . . . .	15
	Hanging plans . . . . .	26
	Rolled plans in chest . . . . .	50
	Plans in progress, City Proper . . . . .	30
	" " " South Boston . . . . .	34
	" " " East Boston . . . . .	20
	" " " Roxbury . . . . .	34
	" " " Dorchester . . . . .	63
	" " " West Roxbury . . . . .	51
	" " " Brighton . . . . .	46
	" " " Charlestown . . . . .	13
	South Boston sectional plans . . . . .	42
	East Boston " " . . . . .	54
	Roxbury " " . . . . .	163
	West Roxbury . . . . .	83
	15 vols. copies of Assessors' plans . . . . .	1,379
	Total number of plans in city office . . . . .	30,114
	<i>Carried forward</i> . . . . .	20,114

## PLANS

IN SURVEYING DEPARTMENT, JANUARY 31, 1892.— *Concluded.*

Indexed.	General Head under which Classified.	Number of Plans.
	<i>Brought forward</i> . . . . .	20,114
	<i>At Dorchester Branch.</i>	
	Indexed plans . . . . .	2,112
	Sectional plans . . . . .	232
	Miscellaneous plots and plans . . . . .	606
	Total number of plans at Dorchester branch . .	2,950
	Total number of plans in Surveying Department . . . . .	23,064

There are also 3,557 lithographed plans in the office at City Hall, not included in the above list, viz.:

Lithographed maps of Dorchester, made in 1869	47
“ “ “ “ 1880	174
“ “ West Roxbury, “ 1873	70
“ “ Brighton, “ 1873	30
“ “ Fort Hill, “ 1866, '69	132
“ “ Church-street District, made in 1868	210
“ “ Washington-street extension, made in 1869	345
“ “ Washington-street widening, made in 1860	740
“ “ North street, made in 1859	2
“ “ Stony-brook drainage area	20
“ “ Boston, made in 1866, '67	125
“ “ “ “ 1886	1
“ “ “ “ 1888	378
“ “ “ “ 1890	21
“ “ “ “ 1891	93
“ “ Suffolk-street District, made in 1869	33
“ “ East Boston, made in 1880	10
“ “ South Boston, “ “	122
“ “ Roxbury, “ “	145
“ “ Charlestown, “ 1879	30

*Carried forward,*

2,728

<i>Brought forward,</i>				2,728
Lithographed maps of	Bussey farm	.	.	510
"	Burnt District	.	.	87
"	Mount Hope Cemetery	.	.	34
"	Winthrop farm	.	.	60
"	Hanover avenue	.	.	51
"	Muddy river	.	.	51
"	Court-House site	.	.	36
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Total	.	.	.	3,557

#### PROPERTY IN SURVEYING DEPARTMENT.

*(Not including furniture.)*

Surveying instruments, consisting of transits, levels, leveling rods, steel and metallic tapes and plumb bobs; drawing instruments, books, tools, drawing-boards, drawing-paper and materials; full sets of Hopkins' and Bromley's atlases of Boston and vicinity; two planimeters, one pantagraph, one papyrograph, and one caligraph. In this department are 23,064 loose and bound plans, and 3,557 lithographed plans, 5 lithographic stones; also buggy, harness, etc., at stable, 441 Tremont street.

A complete list of the above property is on file in the office of the City Surveyor.

Respectfully submitted,

THOMAS W. DAVIS,  
*City Surveyor.*

[DOCUMENT 38 — 1892.]



ANNUAL REPORT

OF THE

TREASURY DEPARTMENT

OF THE

CITY OF BOSTON

FOR THE

FINANCIAL YEAR 1891-2,

BEGINNING MAY 1, 1891, AND ENDING JANUARY 31, 1892.

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CITY OF BOSTON, TREASURY DEPARTMENT,  
CITY HALL, February 10, 1892.

HON. NATHAN MATTHEWS, JR.,

*Mayor of the City of Boston :*

SIR: I herewith transmit the annual report of the transactions of the Treasury Department of the City of Boston for the financial year of 1891-2, which terminated January 31, 1892.

Respectfully submitted,

ALFRED T. TURNER,

*City Treasurer.*



ANNUAL REPORT OF THE CITY TREASURER FOR THE  
FINANCIAL YEAR 1891-2, WHICH ENDED JANUARY 31, 1892.

Balance of Cash on hand May 1, 1891, brought from the financial year 1890-1 . . . . .		\$4,953,319 84	
<b>RECEIPTS.</b>			
Received during the year 1891-2 on account of the City of Boston from:			
City Collector . . . . .		14,503,215 31	
City Loans:			
Laying out and Construction of Highways, 4%, . . . . .	\$50,000 00		
Public Park Construction, 4% . . . . .	700,000 00		
School-houses and School-house Sites, 4% . . . . .	500,000 00		
Sewers, 4% . . . . .	84,000 00		
		1,334,000 00	
Temporary Loan, 1891-2:			
Anticipation of Taxes, 4% . . . . .		2,000,000 00	
Cochituate Water Loans:			
Additional Supply of Water, 4% . . . . .	\$116,000 00		
Extension of Mains, etc., 4% . . . . .	100,000 00		
		216,000 00	
Board of Commissioners of Sinking-Funds:			
For payment of Debt . . . . .	\$1,394,982 71		
Cost of Redemption of Sterling Debt . . . . .	1,081 22		
		1,396,063 93	
Interest on Bank Deposits . . . . .		74,955 88	
Premium on Loans negotiated . . . . .		14,120 00	
Pay-roll Tailings, from Paymasters, settlements with Cashier, parties unpaid . . . . .		23,590 86	
Tax Titles, received from owners to secure estates sold for taxes . . . . .		566 04	
Total on account of the City of Boston . . . . .		\$24,515,831 86	
Received on account of County of Suffolk from:			
City Collector . . . . .	\$133,936 22		
Pay-roll Tailings, from Paymasters, settlements with Cashier, parties unpaid . . . . .	405 13		
		134,341 35	
			\$24,650,173 21



## PAYMENTS

MADE ON ACCOUNT OF THE CITY OF BOSTON DURING THE FINANCIAL YEAR 1891-2.

On Mayor's drafts charged to the following appropriations:			
Ancient Records Department . . . . .			\$2,917 55
Architect Department . . . . .			16,876 34
Assessing Department . . . . .			110,639 64
Auditing Department . . . . .			20,163 91
Board of Aldermen:			
Board of Aldermen . . . . .	\$18,879 45		
Soldiers' Relief . . . . .	122,655 64		
			141,534 49
Board of Police:			
Board of Police . . . . .	\$876,391 71		
Police Charitable Fund, Income . . . . .	8,411 34		
			884,803 05
City Clerk Department . . . . .			60,099 63
City Council:			
Contingent Fund, Joint Committees . . . . .	\$14,768 65		
Incidental Expenses . . . . .	28,882 26		
			43,650 91
City Debt Requirements:			
City Debt . . . . .	\$1,417,467 00		
Interest . . . . .	1,296,689 51		
			2,714,156 51
City Loans:			
Redemption of . . . . .	\$1,388,982 71		
Cost of Redemption of Sterling Loans . . . . .	1,081 22		
			1,390,063 93
City Messenger Department . . . . .			17,719 06
Clerk of Committees Department . . . . .			7,970 34
Collecting Department . . . . .			63,661 66
Common Council . . . . .			6,656 19
Damages by Dogs . . . . .			2,506 00
Engineering Department . . . . .			26,989 69
Ferry Department:			
Ferry Department . . . . .	\$158,905 56		
Head-house, North Ferry, East Boston . . . . .	8,501 18		
New Ferry-boat . . . . .	59,049 69		
			226,456 43
Fire Department:			
Fire Department . . . . .	\$764,045 61		
Fire Department, Equipment . . . . .	2,824 50		
			766,870 11
Harvard Bridge . . . . .			5,277 94
Harvard Bridge Commissioners . . . . .			1,920 44
Health Department . . . . .			105,170 31
Hospital Department . . . . .			189,714 62
Improved Sewerage . . . . .			141,893 76
Inspection of Buildings Department . . . . .			50,307 11
Inspection of Milk and Vinegar Department . . . . .			8,109 67
Inspection of Provisions Department . . . . .			1,797 88
Inspection of Wires Department . . . . .			13,795 23
Lamp Department . . . . .			420,179 21
Law Department . . . . .			21,629 66
Laying out and Construction of Highways . . . . .			34,192 88
Laying out Streets Department:			
Laying out Streets . . . . .	\$49,161 06		
Call Street Extension . . . . .	7,500 00		
Forbes Street . . . . .	2,000 00		
Heath Street, Laying out . . . . .	3,957 80		
Humboldt Avenue Extension . . . . .	86 00		
North Margin Street Extension . . . . .	27,164 00		
Peter Parley Road and Bond Avenue . . . . .	6,428 00		
Smith Street Extension . . . . .	28,635 80		
Willard Street Extension . . . . .	6,462 15		
			131,344 61
Library Department . . . . .			119,836 45
Liquor License Expenses . . . . .			61,441 19
Market Department . . . . .			7,509 10
Mayor . . . . .			21,573 42
Mount Hope Cemetery Department . . . . .			32,099 36
Park Department:			
Park Improvement . . . . .	\$62,220 32		
Muddy River Improvement . . . . .	189 67		
Public Parks . . . . .	261,535 18		
Carried forward . . . . .	\$326,954 17		\$7,871,717 08

<i>Brought forward</i> . . . . .	\$326,954 17	\$7,871,717 08
Public Parks, Charlestown . . . . .	98,338 04	
Public Park, Construction . . . . .	404,937 87	
Public Park Lands . . . . .	206,215 02	
		1,086,445 10
Printing Department . . . . .		42,043 87
Public Buildings Department:		
Public Buildings . . . . .	\$162,346 39	
Engine-house No. 8, Repairs . . . . .	1,418 99	
Fire Department, Building and site, Brighton . . . . .	18,564 24	
Fire Department, Building and site, Egleston Square . . . . .	19,131 88	
Fire Department, Building and site, South Boston . . . . .	10,121 18	
Fire Department, Headquarters, etc. . . . .	6,311 09	
Hose-house, No. 7, Repairs . . . . .	5 25	
Library Building, Dartmouth Street . . . . .	187,758 00	
Police Station-house, Brighton . . . . .	13,085 38	
		418,772 40
Public Celebrations . . . . .		28,706 11
Public Grounds Department:		
Public Grounds . . . . .	\$82,180 54	
Blackstone and Franklin Squares . . . . .	8,227 52	
City Square, Charlestown, Flag-staff . . . . .	450 00	
Common, Asphalt Tiles or Concrete . . . . .	7,150 00	
Common, Draining . . . . .	1,000 00	
Commonwealth Park . . . . .	2,000 00	
Dorchester Square, Meeting-House Hill . . . . .	499 93	
Independence Square . . . . .	1,200 00	
Montgomery Square, Asphalt Walks . . . . .	814 00	
Orchard Park, Settees . . . . .	165 00	
Public Garden Pond, Curbing . . . . .	1,500 00	
Public Grounds, East Boston . . . . .	20,800 09	
Rogers Park . . . . .	3,000 00	
Square, Albany Street, Ward 20 . . . . .	250 00	
Square, Union Park and Waltham Streets . . . . .	8,500 00	
Street trees . . . . .	8,111 20	
Thomas Park . . . . .	2,000 00	
Tudor Bequest . . . . .	50 00	
Washington Park, Settees . . . . .	300 00	
		148,208 28
Public Institutions Department:		
Public Institutions . . . . .	\$419,561 34	
Dormitory, Austin Farm . . . . .	10,094 28	
Hospital, Long Island . . . . .	20,060 67	
		449,716 27
Registration of Voters Department . . . . .		34,606 60
Registry Department . . . . .		8,499 03
Relief of the Poor Department . . . . .		76,912 01
School Committee:		
School Committee . . . . .	\$1,500,179 99	
Gibson School Fund, Income . . . . .	652 32	
Agassiz School-house, etc. . . . .	48 19	
Cook School-house, Enlargement of yard . . . . .	5,800 00	
Flag-staffs, Public School Buildings, Brighton . . . . .	465 00	
Grammar School-house, Agassiz District, site . . . . .	7,889 22	
Grammar School-house, Gibson District, site . . . . .	7,378 10	
Grammar School-house, Hilledale District . . . . .	51,323 25	
Grammar School-house, Mt. Vernon District, site . . . . .	10,100 80	
Grammar School-house, Mt. Vernon District, building . . . . .	9,080 90	
Grammar School-house, North Brighton, site . . . . .	5,200 00	
Grammar School-house, North Brighton, building . . . . .	15,076 10	
Grammar School-house, Pierce District . . . . .	66,937 74	
Grammar School-house, South Boston . . . . .	2,500 15	
High School-house, Roxbury . . . . .	83,372 91	
High School-house, Roxbury, Furnishing . . . . .	12,924 22	
Lyceum Hall, Dorchester, to fit for Primary School . . . . .	12,587 82	
Mechanics' Art High School, site . . . . .	40,388 08	
Mechanics' Art High School, building . . . . .	106 96	
Primary School-house, Adams District . . . . .	47,600 25	
Primary School-house, Bunker Hill District . . . . .	16,135 20	
Primary School-house, Canterbury Street, site . . . . .	3,785 64	
Primary School-house, Dillaway District, site . . . . .	5,545 36	
Primary School-house, Emerson District . . . . .	22,103 03	
Primary School-house, Gardner Street, site . . . . .	2,700 00	
<i>Carried forward</i> . . . . .	\$1,929,881 23	\$10,112,625 75

<i>Brought forward</i> . . . . .	\$1,929,881 23	.....	\$10,112,625 75
Primary School-house, Geo. Putnam District . . . . .	8,094 73		
Primary School-house, Hilledale District . . . . .	17,431 72		
Primary School-house, Lowell District . . . . .	20,410 30		
Primary School-house, Prescott District . . . . .	3,947 33		
Primary School-house, Prince District . . . . .	48,483 25		
School Buildings and Sites . . . . .	467 85		
Sealing of Weights and Measures Department . . . . .			2,028 728 41
Sinking-Funds Department . . . . .			9,292 90
Street Department:			1,823 30
Central Office . . . . .		\$16,050 00	
Bridge Division . . . . .	\$98,228 54		
Berkeley Street Bridge . . . . .	8,466 18		
Charles River Bridges . . . . .	7,311 10		
Chelsea Bridge, Steam Apparatus, etc. . . . .	7,768 45		
Federal Street Bridge . . . . .	63,715 96		
Ferdinand Street Bridge . . . . .	15,552 90		
Irrington Street Bridge . . . . .	7,000 00		
Milton Bridge, Repairing . . . . .	2,500 00		
Cambridge Bridges Division . . . . .	10,322 94		
		210,904 07	
Paving Division . . . . .	\$752,832 44		
A St., Broadway to First St., Repaving . . . . .	12,000 00		
Albany St. . . . .	21,107 49		
Aldie St. . . . .	1,000 00		
Allandale St. . . . .	4,717 41		
Ashfield St. . . . .	1,000 00		
Ashmont St., Dorchester Ave. to Washington St. . . . .	5,400 00		
Atlantic Avenue, Paving . . . . .	3,492 76		
Atlantic St., Thomas Park to Fourth St. . . . .	1,543 02		
Austin St. . . . .	8,700 00		
Baker St., Macadamizing . . . . .	2,500 00		
Ballard St. . . . .	1,000 00		
Batterymarch St., Paving . . . . .	3,200 00		
Beacon St., West Chester Park to Arlington St. . . . .	4,825 38		
Beacon St., west from Charles St. . . . .	35,350 00		
Bedford St., Chauncy St. to Columbia St., Paving . . . . .	4,100 00		
Board Alley, Asphalt . . . . .	469 50		
Boylston St., Church St. to Arlington St., Paving . . . . .	64 50		
Bristol St. . . . .	49 00		
Brookline St., Shawmut Ave. to Tremont St., Bunker Hill St., Elm St. to Sackville St., Macadamizing and Paving . . . . .	531 10		
Bushnell St. . . . .	4,000 00		
Buttonwood St., Mt. Vernon St. to Locust St., Cabot St., Paving . . . . .	2,917 00		
Caldwell St. . . . .	2,013 30		
Cambridge St., Wards 9 and 10, Paving . . . . .	18,000 00		
Camden St., Tremont St. to O. C. R.R. . . . .	1,270 82		
Canton St., Shawmut Ave. to Tremont St. . . . .	23,775 29		
Centre St., Pynchon St. to New Heath St. . . . .	7,500 00		
Chambers St., Charlestown . . . . .	1,000 00		
Charles St. . . . .	3,000 00		
Cleveland Pl., Asphalt . . . . .	634 35		
Cliff St., Resurfacing . . . . .	16,578 66		
Columbus Ave., Resurfacing . . . . .	1,000 00		
Commonwealth Ave., W. Chester Park to Arlington St. . . . .	2,189 72		
Concord Sq., Resurfacing . . . . .	39,000 00		
Cook St. . . . .	603 90		
Cornell St., Macadamizing . . . . .	72 40		
Cornwall St., Laying out and Constructing . . . . .	700 00		
Dartmouth St., Tremont St. to Columbus Ave. . . . .	4,300 00		
Dorchester St., between Eighth St. and Dorchester Avenue, Paving . . . . .	5,405 86		
Dorset St., Dorchester Ave. to Boston St., Macadamizing . . . . .	568 10		
Dover St., Harrison Ave. to Albany St., Paving . . . . .	21,613 91		
Dudley St., Resurfacing to Norfolk House . . . . .	5,000 00		
Dudley St., Washington St. to Vine St., etc. . . . .	6,715 00		
Dupont St., Edgestone . . . . .	5,000 00		
Eagle Sq., Crosswalk, etc. . . . .	33,177 75		
East First St., between H and K Sts., Macadamizing . . . . .	524 00		
E St., Third St. to Bolton St., etc., Asphalt . . . . .	1,000 00		
	3,000 00		
<i>Carried forward</i> . . . . .	\$1,073,422 66	\$226,964 07	\$12,152,467 36

<i>Brought forward</i> . . . . .	\$1,073,422 86	\$226,964 07	\$12,152,467 86
E. Concord St., Harrison Ave. to Albany St. .	4,500 00		
E. Newton St., Harrison Ave. to Albany St. .	3,554 36		
Edgeworth St., Repaving . . . . .	400 00		
Ellwood St. . . . .	1,251 06		
Emerald St., Paving . . . . .	1,574 98		
Emerson St., between H and I Sts., Paving .	5,000 00		
Exeter St. . . . .	316 50		
Falcon St., Macadamizing . . . . .	3,380 40		
First St., between D and F Sts. . . . .	6,289 93		
First St., N. Y. & N. E. R.R. to F St., Paving .	25,000 00		
Fourth St., G St. to H St., Macadamizing . .	1,104 35		
Fulda St., Macadamizing . . . . .	324 75		
Fulton St., Richmond St. to Lewis St. . . .	7,280 42		
Genesee St., Paving . . . . .	3,500 00		
Geneva Ave., Grading . . . . .	6,249 79		
Goldsmith St. . . . .	1,000 00		
Granite Ave., Macadamizing, etc. . . . .	9,700 00		
Green St., Charlestown . . . . .	460 46		
Gustin St., Sewer and Macadamizing . . . .	1,700 00		
Hampshire St., Macadamizing . . . . .	1,000 00		
Harrison Ave., Canton St. to Sharon St. . .	4,000 00		
Harrison Ave., E. Concord St. to E. Chester Park, Asphalt . . . . .	1,500 00		
Harrison Ave., E. Lenox St. to Northampton St. . . . .	3,000 00		
Harvard St., Washington St. to Albany St., Sewer and Paving . . . . .	77 78		
Harvest St., Boston St. to Dorchester Ave. .	4,000 00		
Haskins St., Edgestones and Macadamizing .	2,809 79		
Heath St., Widening, etc. . . . .	2,768 33		
Henley St., Repaving . . . . .	3,947 52		
High St., Winthrop St. to Walker St. . . .	2,125 13		
Hill St. . . . .	4,138 07		
Hobart St., Macadamizing . . . . .	2,000 00		
Hollis St., Asphalt . . . . .	3,087 02		
Howland St., Resurfacing . . . . .	4,000 00		
Hudson St., Asphalt . . . . .	20,113 68		
Humboldt Ave., Grading . . . . .	15,625 52		
Hunnehan St., Grading and Constructing . .	82 80		
Island St. . . . .	25 60		
Jefferies and Marginal Sts. . . . .	5,000 00		
K St., Fourth St. to Eighth St., Resurfacing .	678 34		
Kingston St., Summer St. to Essex St., Paving,	7,715 00		
Lake St. . . . .	11,994 00		
L St., Grading, etc. . . . .	21,025 96		
Lenox St. . . . .	5,344 81		
Lincoln St., Charlestown . . . . .	2,300 00		
Longwood Ave., Parker St. to Huntington Ave., Paving . . . . .	22,592 12		
Lucas St., Asphalt Blocks . . . . .	308 22		
Lynde St. . . . .	1,803 79		
Magazine St., between East Chester Park and Norfolk Ave. . . . .	925 80		
Magnolia St., Repairing . . . . .	4,000 00		
Malden St., Paving . . . . .	6,000 00		
Matthews St., Paving . . . . .	4,560 25		
Maynard St. . . . .	2,000 00		
Medford St., Lexington St. to Chelsea St. .	21,505 36		
Mercer St., Dorchester St. to Eighth St., Re- surfacing . . . . .	1,054 98		
Minot St. . . . .	8,440 37		
Monument court . . . . .	497 48		
Monument St. . . . .	1,866 87		
Moon St. . . . .	8,519 34		
Moreland St., Resurfacing, from Fairland St. to Blue Hill Ave. . . . .	2,000 00		
Mt. Vernon St., Ward 25 . . . . .	2,125 00		
Murdock St. . . . .	1,006 06		
National St., Macadamizing, Gutters, etc. . .	1,500 00		
Neponset Ave. . . . .	12,000 00		
Newman St., Mercer St. to Dorchester St., Resurfacing . . . . .	1,198 26		
Ninth St., Old Harbor St. to N St., Ma- cadamizing . . . . .	6,117 66		
Oak St., Macadamizing . . . . .	1,000 00		
Ocean St., Macadamizing . . . . .	10,100 00		
Owida St., Paving . . . . .	3,300 00		
Owego St., Paving . . . . .	3,668 67		
Park St., Macadamizing . . . . .	2,115 43		
<i>Carried forward</i> . . . . .	\$1,409,224 67	\$226,964 07	\$12,152,467 86

<i>Brought forward</i> . . . . .	\$1,409,224 67	\$226,954 07	\$12,152,467 36
Parker St., Edgestones and Macadamizing . . . . .	35,000 00		
Parker St., Huntington Ave. to Westland Ave. . . . .	420 00		
Parkman St., Ward 9, Paving . . . . .	453 80		
Paul St., Paving . . . . .	844 38		
Pemberton Sq., Macadamizing . . . . .	1,584 57		
Preble St., Dorchester Ave. to Vinton St., Macadamizing, Sewers, etc. . . . .	5,800 00		
Prentiss St., Paving . . . . .	4,000 00		
Prospect Ave. . . . .	500 00		
Q St. . . . .	399 85		
Resurfacing streets, Wards 17 and 18 . . . . .	5,777 31		
Richmond St., Paving . . . . .	1,400 00		
Rochester St., Paving . . . . .	4,360 64		
Rogers St., Dorchester St. to Preble St., Macadamizing . . . . .	1,000 00		
Rutherford Ave., Macadamizing . . . . .	100 00		
Rutherford Ave., Paving . . . . .	7,841 50		
Rutland Square . . . . .	114 10		
Salem St., Charlestown . . . . .	1,000 00		
Savin Hill Ave. . . . .	3,500 00		
Scotia, Cambria, and Bothnia Sts., Macadamizing . . . . .	10,000 00		
Second St., Grading, etc. . . . .	1,031 46		
Second St., K St. to M St., Macadamizing . . . . .	1,422 21		
Second St., Repaving bet. E and Dorchester Sts. . . . .	20,000 00		
Second St., Repaving, from Granite St., easterly . . . . .	15,000 00		
Seneca St., Paving . . . . .	3,241 33		
Seventh St., D St. towards B st., Paving . . . . .	9,000 00		
Shirley St. . . . .	4,042 66		
Short St., Charlestown . . . . .	700 00		
Short St., West Roxbury . . . . .	96 60		
Silver St., A St. to D St., Macadamizing . . . . .	1,000 66		
Sixth St., B St. to C St. . . . .	3,200 00		
Sixth St., H St. to I St., Macadamizing, Gutters, etc. . . . .	1,621 54		
Soley St. . . . .	810 35		
Story St. . . . .	582 28		
Stoughton St., Harrison Ave. to Albany St. . . . .	3,000 00		
Sun-court St. . . . .	1,388 32		
Sycamore and Ridge Sts. . . . .	3,700 (u)		
Symmes St. . . . .	1,000 00		
Terrace Place . . . . .	850 00		
Terrace St., Paving . . . . .	25,218 34		
Texas St. . . . .	2,000 00		
Third St., A St. to Second St. . . . .	2,000 00		
Tremont St., Roxbury Crossing to Parker St., Paving . . . . .	10 50		
Tremont St., Scollay Square to Boylston St. . . . .	52,000 00		
Troy St., Paving . . . . .	8,700 00		
Village St., Paving . . . . .	2,200 00		
Waltham St., Shawmut Ave. to Tremont St., Ward St., Dorchester Ave. to Preble St., Resurfacing . . . . .	500 00		
Wareham St., Harrison Ave. to Albany St. . . . .	675 72		
Warren Ave., Berkeley St. to Canton St. . . . .	13,024 62		
Warren St., Granite Blocks . . . . .	254 40		
Warrenton St., from Washington St., etc. . . . .	17,081 75		
Washburn St., Dorchester Ave. to Boston St., Macadamizing . . . . .	6,621 08		
Washington St., Charlestown . . . . .	3,043 89		
Washington St., between Hawes Ave. and N.Y. & N.E. R.R. . . . .	2,000 00		
Washington St., etc., Ward 23, Macadamizing . . . . .	500 00		
Water St., Charlestown, Repaving . . . . .	8,405 96		
Watson St. . . . .	540 70		
Waumbeck St., Resurfacing . . . . .	1,498 65		
Well St., Paving . . . . .	2,000 00		
Wendell St., Paving . . . . .	1,800 00		
West Chester Park and Square, Washington St. to Providence R.R. Bridge . . . . .	2,520 06		
West Dedham St., Shawmut Ave. to Washington St., Paving . . . . .	2,568 02		
West First St., Paving . . . . .	4,500 00		
West Newton St., between Tremont St. and Columbus Ave., Asphalt Blocks . . . . .	5,200 00		
	12,000 00		
<i>Carried forward</i> . . . . .	\$1,741,341 92	\$226,954 07	\$12,152,467 36

TREASURY DEPARTMENT.

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<i>Brought forward</i>	\$1,741,841 92	\$228,954 07	\$12,152,467 86
West Newton St., Tremont St. to Shawmut Ave., Asphalt	6,000 00		
West Second St.	135 49		
Wharf St.	1,861 03		
		1,749,338 44	
		330,567 64	
Sanitary Division			
Sewer Division	\$370,824 58		
Arlington St.	1,970 06		
Border St.	1,108 91		
Burnett St.	715 55		
Cambridge St.	1,500 00		
Catch-Basins, etc., Huntington Ave.	454 34		
Catch-Basins, Wards 19 and 22	190 21		
Charlestown Sewers, Repairing	8,968 71		
Cleveland Place	157 00		
Crawford St., Humboldt Ave. to Walnut Ave.	2,030 80		
Culverts, Ward 24	5,000 00		
Dunstable St.	373 55		
Dustin St.	6,000 00		
Florence St.	1,306 60		
Harvard and Kilton Sts.	12,000 00		
Improved Sewer, Brookline Ave. connection	131 55		
Oak St., Washington St. to Albany St.	3,500 00		
Porter St., East Boston	12,000 00		
Rebuilding Dorchester Brook Sewer	5,290 89		
Rockwell and Armandine Sts.	8,900 93		
Russell St., Oak St. to Mead St.	324 13		
Sewers, Beacon St. and Commonwealth Ave.	10,387 82		
Sewer between Roslindale and W. Roxbury	33,188 72		
Sewers, Brighton	3,673 30		
Sewer, Byron St., East Boston	934 19		
Sewer outlet, Byron St., East Boston	1,208 19		
Sewer, Commonwealth Ave.	1,000 00		
Sewers, East Boston	2,925 70		
Sewer, Falcon St.	1,000 00		
Sewer, Harcourt St.	432 00		
Sewer, Hillside St.	579 19		
Sewer, Homer St.	1,250 00		
Sewer, Lawrence Ave., Quincy and Magnolia Sts.	4,143 12		
Sewer, Milton St., East Boston	865 31		
Sewer, New St.	15 29		
Sewer outlets, D St.	3,976 17		
Sewer outlet extension, Cottage St.	160 50		
Sewers, Orient Heights	29,585 04		
Sewer, Parker Hill St.	1,024 00		
Sewer, Peter Parley Road	870 92		
Sewers, Roxbury	361 38		
Sewer, Welles Ave.	750 00		
Sewers, Savin Hill District	12,064 61		
Sewers, South Boston	231 11		
Sewers, Ward 23, Washington St., etc.	2,000 00		
Sewers, Westville, Freeman, and Charles Sts.	4,008 36		
Sumner St. and Orleans St.	13,000 00		
Tyler St.	7,000 00		
Walkhill St.	1,500 00		
		580,277 73	
Stony Brook Damages		7,901 08	
Stony Brook Improvement		19,914 86	
Street Cleaning Division		215,464 92	
Street Police Division		464 41	
			3,130,883 15
Surveying Department			25,205 98
Temporary Loans, 1891-2			2,000,000 00
Treasury Department			28,915 67
Cochituate Water-Works:			
Cochituate Water-Works	\$374,333 92		
Sinking Fund Requirements, 1890	275,014 05		
Interest	466,347 78		
Additional Supply of Water	281,271 82		
Extension of Mains, etc.	205,652 56		
High Service	697 78		
			1,603,317 91
Mystic Water-Works:			
Mystic Water-Works	\$139,939 59		
Sinking Fund Requirements, 1890	59,395 39		
Interest	21,638 75		
			220,968 73
Total Payments on Mayor's Drafts			\$19,165,758 80
Carried forward			\$19,165,758 80

<i>Brought forward</i> . . . . .		\$19,165,758 80
Amounts paid but not drawn for by Mayor, through the Auditor's office, charged to the following accounts:		
Commonwealth of Massachusetts:		
National Bank Tax, 1891 . . . . .	\$636,262 98	
State Tax, 1891 . . . . .	553,515 00	
Liquor License Revenue . . . . .	258,904 25	
Armory Loan Assessment . . . . .	28,056 27	
		1,476,738 50
Board of Commissioners of Sinking Funds:		
In settlement of suit against W. A. Simmons <i>et als.</i> . . . . .	\$15,000 00	
Premium on Loans Negotiated . . . . .	14,120 00	
Protested Sewer Assessments . . . . .	15,163 87	
Protested Betterments . . . . .	13,802 81	
Revenue payable under authority of Ordinance . . . . .	31,918 91	
		90,105 59
Old Claims, Mayor's Drafts . . . . .		4,328 00
Pay-roll Tailings, payments by Cashier to parties not paid by Paymasters . . . . .		23,026 98
City Debt due prior to May 1, 1891 . . . . .		2,000 00
Taxes refunded . . . . .		5,021 16
Mt. Hope Cemetery Trust Fund . . . . .		3,000 00
Protested Taxes refunded . . . . .		451 20
Sewer Assessments refunded . . . . .		340 33
Cochituate Water Rates refunded . . . . .		365 30
Residue Tax Sales, etc. . . . .		611 43
Tax Titles . . . . .		28 02
Mystic Water Rates refunded . . . . .		35 23
Tuition of Non-residents refunded . . . . .		7 13
Total Payments on account of City of Boston . . . . .		\$20,771,817 76
<i>County of Suffolk.</i>		
Paid during the financial year 1891-2, as allowed and certified by the Auditor of the City of Boston, acting as Auditor of the County of Suffolk, under authority of Sec. 24, Chap. 23, Public Statutes:		
County Buildings . . . . .		\$33,216 00
Jail . . . . .		22,194 00
Supreme Judicial Court . . . . .		18,504 70
Superior Court, Civil Session . . . . .		98,172 00
Superior Court, Criminal Session . . . . .		56,026 15
Probate Court and Office . . . . .		8,820 30
Municipal Court, Civil Session . . . . .		10,845 92
Municipal Court, Criminal Session . . . . .		43,024 92
Municipal Court, Charlestown . . . . .		6,472 49
East Boston District Court . . . . .		4,838 36
Municipal Court, South Boston . . . . .		7,359 87
Municipal Court, Dorchester District . . . . .		3,563 76
Municipal Court, Roxbury District . . . . .		8,728 12
Municipal Court, West Roxbury District . . . . .		3,842 67
Municipal Court, Brighton District . . . . .		3,233 01
Police Court, Chelsea . . . . .		4,927 17
Insanity Cases . . . . .		9,939 94
Medical Examinations . . . . .		8,457 53
Registry of Deeds . . . . .		7,799 63
Miscellaneous Expenses . . . . .		10,327 10
Fire Marshal . . . . .		7,414 16
Suffolk County Court-House . . . . .		51,642 04
House of Correction . . . . .		67,875 14
County Loans, Redemption of . . . . .		17,000 00
County Debt Sinking Fund Requirements . . . . .		41,694 00
Total Payments allowed by Auditor . . . . .		\$556,409 70
Amounts drawn for by Mayor and certified by Auditor:		
Suffolk County Court-House . . . . .	\$161,334 62	
Interest on County Debt . . . . .	58,710 00	
		220,044 62
<i>Carried forward</i> . . . . .		\$776,454 33

<i>Brought forward</i> . . . . .			\$776,454 32
Ball refunded . . . . .			820 00
County Fines to Complainant . . . . .			175 00
Pay-Roll Tallings, payments by Cashier to parties not paid by Paymaster . . . . .			69 69
County Fines awarded to wives, neglect to support, etc. . . . .			30 00
Old Claims . . . . .			8 65
<b>Total Payments on account of County of Suffolk</b> . . . . .			<b>\$777,557 66</b>
<b>RECAPITULATION.</b>			
Cash Balance May 1, 1891 . . . . .			\$4,953,319 84
Receipts from May 1, 1891, to Jan. 31, 1892:			
Account of City of Boston:			
City Collector . . . . .	\$14,503,215 31		
Temporary Loans . . . . .	2,000,000 00		
City Loans . . . . .	1,334,000 00		
Cochituate Water Loans . . . . .	216,000 00		
Other sources . . . . .	1,509,296 71	\$19,562,512 02	
Account of County of Suffolk:			
City Collector . . . . .	\$133,936 22		
Other sources . . . . .	405 13	134,341 35	
			19,696,853 37
			<b>\$24,650,173 21</b>
Payments from May 1, 1891, to Jan. 31, 1892:			
Account of City of Boston:			
General Drafts . . . . .	\$8,200,443 19		
Pay-Roll Drafts . . . . .	5,910,566 20		
Special Drafts . . . . .	5,064,749 41		
Amounts not drawn for by Mayor through Auditor's office . . . . .	1,606,068 96	\$20,771,817 76	
Account of County of Suffolk:			
General Payments . . . . .	\$556,409 70		
Special Payments . . . . .	220,044 62		
Other amounts . . . . .	1,103 34	777,557 66	
			21,549,375 42
Cash Balance Jan. 31, 1892, carried forward to financial year 1892-3 . . . . .			<b>\$3,100,797 79</b>



Dr. *Balance Sheet of the Treasury Department, Jan. 31, 1892.*

To Appropriations, Revenue, and Income carried forward to the financial year 1892-3 . . . . .		\$3,007,481 32
" Amounts held to the credit of the following accounts:		
Protested Taxes . . . . .	\$55,661 31	
Old Claims, City Account . . . . .	7,491 80	
Pay-Roll Tallings, City Account . . . . .	7,184 44	
City Debt due prior to Feb. 1, 1892 . . . . .	7,000 00	
Duplicate and Over-Payments to City Collector . . . . .	4,459 00	
Board of Commissioners of Sinking Funds, Revenue received in January, 1892 . . . . .	3,469 96	
Residue, Tax Sales, etc. . . . .	2,841 09	
Bay State Gas Co., Guarantee Fund . . . . .	1,328 00	
Tax Titles, etc. . . . .	823 12	
Evergreen Cemetery, Trust Fund . . . . .	800 00	
Pay-Roll Tallings, County Account . . . . .	779 08	
Gibson School Fund . . . . .	425 79	
Protested Sewer Assessments . . . . .	389 82	
Naturalization Fees, payable to the Social Law Library . . . . .	341 50	
Mount Hope Cemetery Trust Fund . . . . .	339 32	
Franklin Park Betterment Repayments . . . . .	238 22	
Protested Paving Assessments . . . . .	188 52	
Old Claims, County Account . . . . .	47 00	
Protested Fees and Charges, Collecting Department . . . . .	8 50	
		93,816 47
		\$3,100,797 79

TREASURY DEPARTMENT.

13

ALFRED T. TURNER, *City Treasurer.*

CR.

By Cash Deposited in National Banks and offices:

Atlantic National Bank . . . . .	\$50,238 64
Atlas National Bank . . . . .	110,790 08
Blackstone National Bank . . . . .	50,238 68
Boston National Bank . . . . .	50,238 63
Broadway National Bank . . . . .	40,259 23
Bunker Hill National Bank . . . . .	50,395 03
Central National Bank . . . . .	60,388 86
Columbian National Bank . . . . .	50,238 65
Continental National Bank . . . . .	75,518 47
Everett National Bank . . . . .	40,306 12
Faneuil Hall National Bank . . . . .	75,510 22
First National Bank . . . . .	50,230 36
First Ward National Bank . . . . .	40,267 02
Fourth National Bank . . . . .	50,388 84
Freemans National Bank . . . . .	50,234 50
Hamilton National Bank . . . . .	50,230 40
Lincoln National Bank . . . . .	50,311 09
Manufacturers National Bank . . . . .	60,388 85
Market National Bank . . . . .	50,238 70
Massachusetts National Bank . . . . .	50,238 60
Monument National Bank . . . . .	40,263 34
Mount Vernon National Bank . . . . .	40,259 23
National Bank of the Commonwealth . . . . .	50,238 64
National Bank of North America . . . . .	50,234 51
National Eagle Bank . . . . .	50,238 28
National Exchange Bank . . . . .	50,234 51
National Hide and Leather Bank . . . . .	50,235 03
National Rockland Bank . . . . .	50,316 02
National Security Bank . . . . .	50,320 43
National Union Bank . . . . .	50,238 61
National Webster Bank . . . . .	75,510 37
New England National Bank . . . . .	50,234 52
North National Bank . . . . .	50,238 61
Old Boston National Bank . . . . .	50,238 64
People's National Bank . . . . .	50,315 41
Second National Bank . . . . .	50,477 26
Shawmut National Bank . . . . .	50,238 64
State National Bank . . . . .	110,790 01
Third National Bank . . . . .	75,510 24
Tremont National Bank . . . . .	50,241 92
Globe National Bank . . . . .	\$2,203,028 69
Howard National Bank . . . . .	113,868 75
National Bank of Redemption . . . . .	86,946 35
National Bank of the Republic . . . . .	70,470 69
National Revere Bank . . . . .	107,949 43
National Security Bank, Pay-Roll Tailings account . . . . .	201,895 05
	8,959 50

\$2,793,118 46

Cash and Cash vouchers in office, including payments made on Drafts of Feb. 1, 1892, duly certified by the City Auditor and approved by the Mayor and County Auditor, chargeable to the financial year 1892-3 . . . . .

307,679 33

\$3,100,797 79

\$3,100,797 79

ALFRED T. TURNER,  
*City Treasurer.*

## APPENDIX.

The City Treasurer had in his possession January 31, 1892, as treasurer and as custodian, the following trust funds, viz.:

### BABCOCK MUSIC FUND.

By the will of the late ARCHIBALD BABCOCK, who died Aug. 10, 1862, the sum of \$3,000 was bequeathed to the City of Charlestown and accepted by the City Council of that city November, 1862, upon the conditions and for the purposes expressed by him in his last will and testament:

"The income to be annually expended in procuring the services of musicians, or of a band or bands of musicians, to perform in public in the City of Charlestown, within its present limits, free to all its citizens, one-half of said income to be annually expended in procuring musicians, or band or bands of musicians, to play on or near the small common at the 'Neck,' so called, at the corner of Main and Cambridge streets, preference to be given to citizens of Charlestown, due regard being had as to ability and quality."

Deposits in the Charlestown Five-Cents Savings Bank . . . \$3,000 00

### CITY HOSPITAL FUNDS.

**BALL FUND.** — Bequest of the late JONAS BALL, the interest of which is to furnish clothing to indigent patients when leaving the hospital.

Invested in one certificate of indebtedness of City of Boston,  
due July 1, 1919, interest at 4 per cent. per annum . . . \$1,000 00

**CHEEVER FUND.** — Donation by Dr. DAVID W. CHEEVER, accepted by the Trustees March 20, 1889, the income of which is to be expended as per following extract from his letter:

"To purchase and present to each house surgeon when his term of service expires a small case (pocket case) of surgical instruments, as a gift from me."

Invested in one certificate of indebtedness of City of Boston, due  
Jan. 1, 1919, interest at four per cent. per annum . . . \$2,000 00

**GOODNOW FUND.** — A bequest of ELISHA GOODNOW, of South Boston, who died in 1851. By his will the city came into possession of certain real estate on Cross street and Third street, for the purpose of establishing a hospital for the sick, one-half of said funds to be applied for the establishment and maintenance of free beds, which should always be at the disposal and under the control of the officers of the government of said hospital for the time being. The proceeds from the sale of these estates and accumulated interest were invested in certificates of indebtedness of City of Boston, with rates of interest as follows:

One due July 1, 1894, six per cent. per annum . . .	\$16,500 00
One due Oct. 1, 1897, five per cent. per annum . . .	4,000 00
One due April 1, 1906, six per cent. per annum . . .	1,000 00
One due April 1, 1915, four per cent. per annum . . .	4,500 00
	<u>\$26,000 00</u>

**GOODNOW LIBRARY FUND.** — Donation of **GEORGE GOODNOW**, the interest of which to be expended annually by the Board of Trustees in replenishing the library of the hospital with books and pamphlets suitable for the reading of the patients during convalescence.

Invested in one certificate of indebtedness of City of Boston, due  
July 1, 1894, interest at six per cent. per annum . . . \$1,000 00

**NICHOLS FUND.** — Bequest of **LAWRENCE NICHOLS**, who died in September, 1862, of \$1,000, less internal-revenue tax, "towards the establishment and endowment of a City Hospital," and from the executor of the will as a residuary legatee, \$580.50. These amounts and accumulated interest were invested in

One certificate of indebtedness of City of Boston, due July 1, 1894, interest at six per cent. per annum . . .	\$1,000 00
One certificate of indebtedness of City of Boston, due July 1, 1907, interest at six per cent. per annum . . .	1,000 00
	<u>\$2,000 00</u>

**NORCROSS FUND.** — Donation of **OTIS NORCROSS**, late Mayor of the city, the interest of which is to furnish clothing to indigent patients when leaving the hospital.

Invested in one certificate of indebtedness of City of Boston, due  
Oct. 1, 1897, interest at five per cent. per annum . . . \$2,000 00

**PERKINS FUND.** — Bequest of the late **MARY G. PERKINS**, the income of which is to be expended for Medical Library and artificial limbs and surgical appliances, for the use of patients leaving the hospital.

Invested in one certificate of indebtedness of City of Boston, due  
Jan. 1, 1919, interest at four per cent. per annum . . . \$7,500 00

**SHAW FUND.** — Bequest of the late **MARY LOUISA SHAW**, the income of which is to be expended by the Trustees for the purchase of flowers and fruit for the use and comfort of the patients in the hospital.

Invested in one certificate of indebtedness of City of Boston, due  
April 1, 1905, interest at six per cent. per annum . . . \$2,000 00

Total City Hospital Trust Funds . . . \$43,500 00

#### EVERGREEN CEMETERY FUND.

Amount paid by the owners of lots in Evergreen Cemetery, the income of which is to be expended for the perpetual care of lots. Invested in:

One certificate of indebtedness of City of Boston, due Oct. 1, 1900, interest at five per cent. per annum . . .	\$100 00
One certificate of indebtedness of City of Boston, due Oct. 1, 1914, interest at four per cent. per annum . . .	500 00
One certificate of indebtedness of City of Boston, due Oct. 1, 1917, interest at four per cent. per annum . . .	500 00
One certificate of indebtedness of City of Boston, due Nov. 15, 1919, interest at three and one-half per cent. per annum . . .	200 00
Cash in City Treasury . . .	800 00
	<u>\$2,100 00</u>

#### FOSS SEVENTEENTH OF JUNE, AND FLAG FUNDS.

The City Council of the City of Charlestown. in August, 1866, accepted the bequests made in the will of the late **JACOB FOSS**, who died in Charlestown, June 2, 1866, the income of which is to be expended for the following purposes:

Celebrating the anniversary of the Battle of Bunker Hill, for either or all of the following purposes, viz.: "*Ringing the bells, firing salutes, music, or decorating the streets.*"

Invested in one certificate of indebtedness, City of Boston, due  
Oct. 1, 1897, interest at six per cent. per annum . . . \$2,000 00

Purchasing "United States flags for the use of the late City of Charlestown within its present limits; the flags so purchased to be used on all proper occasions, so that not more than two years' purchases shall be on hand at any time."

Invested in one certificate of indebtedness, City of Boston, due  
Oct. 1, 1897, interest at six per cent. per annum . . . \$2,000 00

#### MOUNT HOPE CEMETERY FUND.

Amounts paid by owners of lots in Mount Hope Cemetery, the income from which is to be expended by the trustees for the perpetual care of lots. Invested in certificates of indebtedness of City of Boston, maturing and bearing interest as follows:

One due April 1, 1899, five per cent. per annum . . .	\$2,000 00
One due Oct. 1, 1900, five per cent. per annum . . .	1,500 00
One due April 1, 1902, four per cent. per annum . . .	2,500 00
One due Oct. 1, 1902, four per cent. per annum . . .	2,000 00
One due Jan. 1, 1903, four per cent. per annum . . .	500 00
One due Oct. 1, 1903, four per cent. per annum . . .	1,000 00
One due Jan. 1, 1905, six per cent. per annum . . .	1,000 00
One due April 1, 1906, six per cent. per annum . . .	1,000 00
One due Oct. 1, 1907, five per cent. per annum . . .	1,000 00
One due Oct. 1, 1911, four per cent. per annum . . .	1,000 00
One due April 1, 1914, four per cent. per annum . . .	1,000 00
One due Oct. 1, 1914, four per cent. per annum . . .	1,500 00
One due Oct. 1, 1915, four per cent. per annum . . .	3,000 00
One due Oct. 1, 1916, four per cent. per annum . . .	3,000 00
One due April 1, 1917, four per cent. per annum . . .	1,000 00
One due Oct. 1, 1917, four per cent. per annum . . .	1,000 00
One due July 1, 1918, four per cent. per annum . . .	1,500 00
One due Oct. 1, 1918, four per cent. per annum . . .	1,000 00
One due April 1, 1919, four per cent. per annum . . .	1,000 00
One due July 1, 1919, four per cent. per annum . . .	1,000 00
One due Nov. 15, 1919, three and one-half per cent. per annum .	1,400 00
One due Oct. 1, 1920, four per cent. per annum . . .	3,000 00
One due Oct. 1, 1920, four per cent. per annum . . .	1,000 00
One due Oct. 1, 1920, four per cent. per annum . . .	2,000 00
	<u>\$35,900 00</u>
Cash in City Treasury . . . . .	339 32
	<u>\$36,239 32</u>

#### PHILLIPS STREET-FUND.

This is a bequest of JONATHAN PHILLIPS, who died in July, 1860, who gave by his will to the City of Boston, \$20,000 "as a trust-fund, the income of which will be annually expended to adorn and embellish the streets and public places in said city," which has been invested in

One certificate of indebtedness of City of Boston, due Jan. 1, 1906, interest at six per cent. per annum, payable to the Mayor of the city for the time being, for . . . \$20,000 00

#### POLICE CHARITABLE FUND.

By orders of the City Council, approved July 7, 1890, the principal and income of fund known as the Police Charitable Fund, consisting of moneys which had been earned by police-officers for fees as witnesses, in

Municipal and District Courts of the City of Boston, was placed in charge of the City Treasurer as custodian, and the Board of Police were authorized to expend the income thereof, and the amount appropriated for pensions of Police, for the payment of pensions of members of the Police force who have been placed on the pension roll, and with the approval of the Mayor, for the relief of persons who have received an honorable discharge from the police force by reason of sickness, age, or other disability, and who are, in consequence thereof, in necessitous circumstances; and also to the relief of the widows and orphans, in necessitous circumstances, of police-officers who have died while in the service of the city, or from the effects of injuries received in the execution of their duty.

Invested in certificates of indebtedness of City of Boston, maturing and bearing interest as follows :

One due April 1, 1892, six per cent. per annum	\$. 3,000 00
One due July 1, 1892, six per cent. per annum	4,000 00
One due Oct. 1, 1892, six per cent. per annum	1,000 00
One due Jan. 1, 1893, six per cent. per annum	5,000 00
One due July 1, 1893, six per cent. per annum	5,000 00
One due Jan. 1, 1894, six per cent. per annum	4,000 00
One due April 1, 1894, six per cent. per annum	1,000 00
One due Oct. 1, 1897, six per cent. per annum	3,000 00
One due Oct. 1, 1897, five per cent. per annum	4,000 00
Two due April 1, 1899, five per cent. per annum	4,500 00
Two due Oct. 1, 1900, five per cent. per annum	7,400 00
One due Oct. 1, 1900, four per cent. per annum	7,000 00
One due Jan. 1, 1901, four per cent. per annum	3,000 00
One due Oct. 1, 1901, four per cent. per annum	5,000 00
One due April 1, 1902, four per cent. per annum	7,000 00
One due Oct. 1, 1902, four per cent. per annum	6,000 00
One due Jan. 1, 1903, four per cent. per annum	5,000 00
Two due Oct. 1, 1903, four per cent. per annum	7,000 00
Two due April 1, 1905, six per cent. per annum	16,000 00
Two due April 1, 1906, six per cent. per annum	4,750 00
One due Oct. 1, 1906, six per cent. per annum	4,000 00
One due April 1, 1907, six per cent. per annum	4,000 00
One due April 1, 1908, five per cent. per annum	3,000 00
One due April 1, 1914, four per cent. per annum	5,000 00
One due Oct. 1, 1914, four per cent. per annum	6,000 00
Two due April 1, 1915, four per cent. per annum	6,000 00
One due Oct. 1, 1915, four per cent. per annum	6,000 00
One due April 1, 1916, four per cent. per annum	5,000 00
One due Oct. 1, 1916, four per cent. per annum	6,300 00
One due April 1, 1917, four per cent. per annum	5,000 00
One due Oct. 1, 1917, four per cent. per annum	7,500 00
Two due Jan. 1, 1918, four per cent. per annum	5,000 00
One due April 1, 1918, four per cent. per annum	300 00
One due July 1, 1918, four per cent. per annum	3,500 00
One due Oct. 1, 1918, four per cent. per annum	3,500 00
One due Jan. 1, 1919, four per cent. per annum	3,000 00
One due April 1, 1919, four per cent. per annum	3,000 00
One due July 1, 1919, four per cent. per annum	1,200 00
One due Nov. 15, 1919, three and one-half per cent. per annum	12,000 00
One due Jan. 1, 1920, four per cent. per annum	3,000 00
One due Jan. 6, 1920, three and one-half per cent. per annum	2,000 00
One due July 1, 1920, four per cent. per annum	4,600 00
One due Oct. 1, 1920, four per cent. per annum	1,000 00
One due Oct. 1, 1920, four per cent. per annum	1,500 00
One due Oct. 1, 1921, four per cent. per annum	3,500 00

\$207,550 00

#### POOR WIDOWS' FUND.

This is a donation made by MRS. JOANNA BROOKER, and others, to the Selectmen of Boston for the time being.

The income from this fund is paid over in equal proportions to the Aldermen of this city, and they distribute the same, at their discretion, for the relief of POOR WIDOWS AND SICK PEOPLE.

Invested in:

One certificate of indebtedness of City of Boston, due Oct. 1, 1897, interest at five per cent. per annum . . . . .	\$1,500 00
One certificate of indebtedness of City of Boston, due April 1, 1905, interest at six per cent. per annum . . . . .	1,700 00
	<u>\$3,200 00</u>

#### PUBLIC LIBRARY FUNDS.

**ABBOTT LAWRENCE FUND.**—This is the bequest of the late ABBOTT LAWRENCE, of Boston.

Invested in one certificate of indebtedness of City of Boston, due July 1, 1905, interest at six per cent. per annum . . . \$10,000 00

The interest on this fund is to be exclusively appropriated for the purchase of books for the said library, having a permanent value.

**BATES FUND.**—This is a donation made by the late JOSHUA BATES, of London, in March, 1853.

Invested in one certificate of indebtedness of the City of Boston, due April 1, 1894, interest at six per cent. per annum . . . \$50,000 00

"The income only of this fund is to be used, each and every year, expended in the purchase of such books of permanent value and authority as may be found most needful and most useful."

**BIGELOW FUND.**—This is a donation made by the late JOHN P. BIGELOW, in August, 1850, when Mayor of the city.

The income from this fund is to be appropriated to the purchase of books for the increase of the library.

Invested in one certificate of indebtedness of City of Boston, due April 1, 1894, interest at six per cent. per annum . . . \$1,000 00

**BOWDITCH FUND.**—This is the bequest of the late J. INGERSOLL BOWDITCH, of Boston, of \$10,000, to the Boston Public Library, the income of which to be expended for the purchase of books of permanent value and authority in Mathematics and Astronomy.

Invested in one certificate of indebtedness of City of Boston, due Jan. 1, 1920, interest at three and one-half per cent. per annum . . . . . \$10,000 00

**EDWARD LAWRENCE FUND.**—This is the bequest of the late EDWARD LAWRENCE, of Charlestown. The following clause from his will explains its purpose:

"To hold and apply the income, and so much of the principal as they may choose, to the purchase of special books of reference, to be kept and used only at the Charlestown branch of said Public Library."

Invested in one certificate of indebtedness of City of Boston, due April 1, 1916, interest at four per cent. per annum . . . \$500 00

**FRANKLIN CLUB FUND.**—This is a donation made in June, 1863, by a literary association of young men in Boston, who, at the dissolution of the association, authorized its trustees, Thomas Minns, John J. French, and J. Franklin Reed, to dispose of the funds on hand in such a manner as to them should seem judicious. They elected to bestow it on the Public Library, attaching to it the following conditions: "In trust that the income, but the income only, shall, year by year, be expended in the purchase of books of

permanent value for the use of the free Public Library of the city, and, as far as practicable, of such a character as to be of special interest to young men." The Trustees expressed a preference for books relative to Government and Political Economy.

Invested in one certificate of indebtedness of City of Boston,  
due Jan., 1914, interest at four per cent. per annum . . . \$1,000 00

**GREEN FUND.** — Donations of Dr. SAMUEL A. GREEN, formerly Mayor of the city, of \$2,000, the income of which is to be expended for the purchase of books relating to American history. Invested in certificates of indebtedness of City of Boston, maturing and bearing interest as follows:

One due Oct. 1, 1900, five per cent. . . . .	\$500 00
One due April 1, 1908, five per cent. . . . .	1,000 00
One due April 1, 1914, four per cent. . . . .	500 00
	<u>\$2,000 00</u>

**CHARLOTTE HARRIS FUND.** — Bequest of CHARLOTTE HARRIS, late of Boston, the object of which is stated in the following extract from her will: "I give to the Charlestown Public Library \$10,000, to be invested on interest, which interest is to be applied to the purchase of books published before 1850. I also give to said Public Library my own private library, and the portrait of my grandfather, Richard Devens." Bequests accepted by City Council, July 31, 1877.

Invested in one certificate of indebtedness of City of Boston,  
due Oct. 1, 1897, interest at six per cent. per annum . . . \$10,000 00

**THOMAS B. HARRIS FUND.** — Bequest of THOMAS B. HARRIS, late of Charlestown, for the benefit of the Charlestown Public Library.

Invested in one certificate of indebtedness of City of Boston,  
due April 1, 1914, interest at four per cent. . . . . \$1,000 00

**PHILLIPS FUND.** — This is a donation made by the late JONATHAN PHILLIPS, of Boston, in April, 1853.

Invested in one certificate of indebtedness of City of Boston, due  
April 1, 1894, interest at six per cent. per annum . . . . \$10,000 00

The interest on this fund is to be used exclusively for the purchase of books for said Library.

Also, a bequest by the same gentleman, in his will, dated 28th of September, 1849.

Invested in one certificate of indebtedness of City of Boston, due  
Jan. 1, 1906, interest at six per cent. per annum . . . . \$20,000 00

The interest on which is to be annually devoted to the maintenance of a Free Public Library.

Mr. Phillips died on the 29th of July, 1860, at the age of 82; the latter sum was realized by the city in April, 1861.

**PIERCE FUND.** — This is a donation made by HENRY L. PIERCE, formerly Mayor of the city, Nov. 29, 1873, and accepted by the City Council, Dec. 27, 1873.

Invested in one certificate of indebtedness of City of Boston, due  
Jan. 1, 1894, interest at six per cent. per annum . . . . \$5,000 00

**SCHOLFIELD FUND.** — Bequest of the late ARTHUR SCHOLFIELD, of \$50,000, who died in New York, Jan. 17, 1883, who provided that upon the death of certain heirs the interest was to be used for the purchase of books of per-



manent value. His last heir, Joseph Scholfield, died Nov. 18, 1889, and by his will bequeathed to the City of Boston the sum of \$11,766.67, which represents the income of said fund, received by him up to the time of his death, to be added to the fund bequeathed by his brother, and which, with the interest accumulated thereon, was invested in a certificate of indebtedness of the City of Boston for \$11,800.

The fund is now invested in certificates of indebtedness of the City of Boston, bearing interest and maturing as follows:

One due Oct. 1, 1913, four per cent. per annum	.	.	.	\$50,000 00
One due July 1, 1920, four per cent. per annum	.	.	.	11,800 00
				<u>\$61,800 00</u>

**SOUTH BOSTON BRANCH LIBRARY FUND.** — Donation of a citizen of South Boston, the income of which is to be expended for the benefit of the South Boston Branch Library.

Invested in one certificate of indebtedness of City of Boston,  
due July 1, 1919, interest at four per cent. per annum . . . \$100 00

**TICKNOR FUND.** — By the will of the late GEORGE TICKNOR, of Boston, he bequeathed to the City of Boston all his books and manuscripts in the Spanish and Portuguese languages, about four thousand volumes, and also the sum of four thousand dollars. The city is required to spend not less than one thousand dollars in every five years during the twenty-five years next succeeding (i.e., the income of four thousand dollars, at the rate of five per cent. per annum), in the purchase of books in the Spanish and Portuguese languages and literature. At the end of twenty-five years the income of the said sum is to be expended annually in the purchase of books of permanent value, either in the Spanish or Portuguese languages, or in such other languages as may be deemed expedient by those having charge of the library. The books bequeathed or purchased are always to be freely accessible for reference or study, but are not to be loaned for use outside of the library building.

Invested in one certificate of indebtedness of City of Boston,  
due October 1, 1920, interest at four per cent. per annum . . . \$4,000 00

**TOWNSEND FUND.** — This is a donation from William Minot and William Minot, Jr., executors of the will of MARY P. TOWNSEND, of Boston, at whose disposal she left a certain portion of her estate in trust, for such charitable and public institutions as they might think meritorious. Said executors accordingly selected the Public Library of the City of Boston as one of such institutions, and attached the following conditions to the legacy: "The income only shall, in each and every year, be expended in the purchase of books for the use of the library; each of which books shall have been published in some one edition at least five years at the time it may be so purchased."

Invested in one certificate of indebtedness of City of Boston,  
due April 1, 1899, interest at five per cent. per annum . . . \$4,000 00

**TREADWELL FUND.** — By the will of the late DANIEL TREADWELL, of Cambridge, late Rumford Professor in Harvard College, who died Feb. 27, 1872, he left the residue of his estate, after payment of debts, legacies, etc., in trust to his executors, to hold during the life of his wife for her benefit, and after her decease to divide the residue then remaining in the hands of the trustees as therein provided, and convey one-fifth part thereof to the Trustees of the Public Library of the City of Boston. The income of which is to be expended by said trustees in such manner as they may deem for the best interests of the Library.

Invested in certificates of indebtedness of City of Boston, bearing interest and maturing as follows:

One due April 1, 1916, four per cent. per annum . . .	\$2,000 00
One due October 1, 1917, four per cent. per annum . . .	1,700 00
One due Nov. 15, 1919, three and one-half per cent. per annum,	1,400 00

\$5,100 00

Also —

16 shares Boston & Albany Railroad Corporation . . .	2,785 00
6 shares Boston & Providence Railroad Corporation . . .	1,077 00
12 shares Fitchburg Railroad Corporation preferred stock . . .	1,062 00
1 share Vermont & Massachusetts Railroad Corporation . . .	133 00
18 shares Cambridge Lyceum stock . . .	540 00

\$10,697 00

Total, Public Library Trust-Funds . . . . . \$201,097 00

### SCHOOL FUNDS.

**BOWDOIN, DORCHESTER, SCHOOL FUND.** — Proceeds from the sale of a woodland estate in Milton, conveyed by Gov. JAMES BOWDOIN to the inhabitants of the Town of Dorchester, invested in —

One certificate of indebtedness of City of Boston, due Jan. 1, 1920, interest at four per cent. per annum . . . . . \$4,500 00

Income to be expended by the School Committee for the benefit of the Public Schools in that part of Boston called Dorchester.

**COMINS SCHOOL LIBRARY FUND.** — Donation of LINUS B. COMINS, the interest of which is to be expended upon the library of the "Comins Grammar School for Girls," and to be held in trust by the Chairman of the School Committee, the Mayor of the city, and the President of the Common Council, who are constituted, *ex officio*, Trustees of the Fund.

Invested in one certificate of indebtedness of City of Boston, due April 1, 1899, interest at five per cent. per annum . . . . . \$500 00

**EASTBURN SCHOOL FUND.** — This is a bequest from the late JOHN H. EASTBURN, and received from the executors of his estate in April, 1886.

The following clause from his will explains the purpose of the bequest:

"The interest to be applied to aid and assist deserving and poor scholars to finish their education, by pecuniary assistance, in the Normal School for Females."

Invested in one certificate of indebtedness of City of Boston, due April 1, 1916, interest at four per cent. per annum . . . . . \$10,000 00

**FRANKLIN SCHOOL MEDAL FUND.** — This is a legacy by DR. BENJAMIN FRANKLIN, in 1791, the interest on which, since 1792, has been invested in silver medals, which are now distributed, at the annual examinations, among the most deserving boys in the ENGLISH HIGH AND LATIN SCHOOLS.

Invested in one certificate of indebtedness of City of Boston, due April 1, 1900, interest at five per cent. per annum . . . . . \$1,000 00

Cash in the Globe National Bank, Income . . . . . \$196 89

**GIBSON SCHOOL FUND.** — This is the bequest of CHRISTOPHER GIBSON, who provided by will, about 1674, that, after the payment of legacies and debts, his executor should "purchase some estate for the promotion of learning in the town of Dorchester." The surviving executor, Daniel Preston, purchased for £104 twenty-six acres of land at Smelt Brook, and deeded the same, Feb. 6, 1693, to Enoch Wiswell, Samuel Robinson, John Tolman, James Bird, and Increase Sumner, as trustees, and to their successors and assigns, for the "use and purpose, benefit and behoof, of the schools of learning in the town of Dorchester." Sales have been made from time to time, and a part still remains unsold. The proceeds have been invested in certificates of indebtedness of City of Boston, bearing interest and maturing as follows:

One due Jan. 1, 1901, four per cent. per annum . . .	\$3,000 00
One due Jan. 1, 1901, four per cent. per annum . . .	2,000 00
One due Jan. 1, 1903, four per cent. per annum . . .	1,000 00
One due Oct. 1, 1905, six per cent. per annum . . .	1,000 00
One due April 1, 1908, five per cent. per annum . . .	5,000 00
One due April 1, 1908, five per cent. per annum . . .	1,000 00
One due April 1, 1915, four per cent. per annum . . .	2,500 00
Two due Oct. 1, 1920, four per cent. per annum . . .	3,000 00
Cash in City Treasury . . . . .	425 79
	<u>\$18,925 79</u>

**LATIN SCHOOL PRIZE FUND.** — This is a donation from a number of gentlemen in Boston, in the year 1819, the interest of which is invested in prizes, which are annually distributed among the most deserving scholars in the PUBLIC LATIN SCHOOL.

Invested in one certificate of indebtedness of City of Boston,  
due Jan. 1, 1906, interest at six per cent. per annum . . . \$1,050 00

**LAWRENCE HIGH SCHOOL FUND.** — This is a donation made by the late ABBOTT LAWRENCE, of Boston, in the year 1844, the interest of which is payable annually to the Sub-Committee of the ENGLISH HIGH SCHOOL, for the time being; and is by them distributed in prizes for the best performances in various branches of literature and science in that institution; and in such other rewards to the scholars in the school as that committee shall recommend.

Invested in one certificate of indebtedness of City of Boston,  
due Jan. 1, 1906, interest at six per cent. per annum . . . \$2,000 00

**LAWRENCE LATIN SCHOOL FUND.** — This is a donation made by the late ABBOTT LAWRENCE, in the year 1845, the interest of which is payable annually to the "Chairman of the Sub-Committee of the PUBLIC LATIN SCHOOL, for the time being," and is distributed in prizes for the general encouragement of the scholars in such a way as the sub-committee of that school shall consider advisable.

Invested in one certificate of indebtedness of City of Boston,  
due Jan. 1, 1906, interest at six per cent. per annum . . . \$2,000 00

**MILMORE BRIMMER SCHOOL FUND.** — Bequest of MARTIN MILMORE, the income from which to aid in clothing the poor children of the Brimmer School.

Invested in one certificate of indebtedness of City of Boston,  
due April 1, 1914, interest at four per cent. per annum . . . \$500 00

**NORCROSS SCHOOL LIBRARY FUND.** — Donation and bequest of OTIS NORCROSS. The income from this fund is to be paid to the master of the "Norcross School," to be expended in books for a library of the first class of said school. Invested in certificates of indebtedness of City of Boston, maturing and bearing interest as follows:

One due Oct. 1, 1897, five per cent. per annum . . .	\$500 00
One due Oct. 1, 1902, four per cent. per annum . . .	500 00
	<u>\$1,000 00</u>

**SMITH SCHOOL FUND.** — This was a legacy of ABIEL SMITH, of Boston, who died in 1817, to the SELECTMEN OF THE TOWN OF BOSTON, for the time being.

The income from this fund is appropriated towards the expense of "the Free Instruction of COLORED CHILDREN in Reading, Writing, and Arith-

metic." Invested in certificates of indebtedness of City of Boston, bearing interest and maturing as follows:

One due April 1, 1900, five per cent. per annum . . .	\$4,000 00
One due July 1, 1919, four per cent. per annum . . .	200 00
One due April 1, 1915, four per cent. per annum . . .	4,400 00
	<u>\$8,600 00</u>

**STOUGHTON SCHOOL FUND.** — This is a bequest of Gov. WILLIAM STOUGHTON, who died at Dorchester, July 7, 1701, and gave to the schools of Dorchester one hundred and fifty pounds, "for the advancement of the salary of a school-master."

The terms of this bequest were complied with by the authorities of the Town of Dorchester. This fund was received from the Treasurer of the Town of Dorchester, by the terms of the act of annexation of said town to Boston, and stands as follows:

Invested in one certificate of indebtedness of City of Boston, due April 1, 1915, interest at four per cent. per annum . . .	<u>\$5,800 00</u>
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The income of the fund is paid into the City Treasury, and credited annually to salaries of school instructors.

**WEBB FRANKLIN SCHOOL FUND.** — This is a legacy made in the year 1828, by RUFUS WEBB, formerly writing master in one of the public schools.

The income from this fund is applied to the purchase of books, etc., for the use of indigent scholars in the writing department of the Franklin School.

Invested in one certificate of indebtedness of the City of Boston, due April 1, 1905, interest at six per cent. per annum . . .	<u>\$1,000 00</u>
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Total school funds in the custody of the City Treasurer . . .	<u>\$56,375 79</u>
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#### RECAPITULATION OF TRUST FUNDS IN CUSTODY OF CITY TREASURER.

Babcock Music . . . . .	\$3,000 00
City Hospital . . . . .	43,500 00
Evergreen Cemetery . . . . .	2,100 00
Foss Seventeenth of June, and Flag . . . . .	4,000 00
Mount Hope Cemetery . . . . .	36,239 32
Phillips Street . . . . .	20,000 00
Police Charitable . . . . .	207,550 00
Poor Widows' . . . . .	3,200 00
Public Library . . . . .	201,097 00
School . . . . .	56,375 79
	<u>\$577,062 11</u>





ANNUAL REPORT  
OF THE  
WATER INCOME DEPARTMENT,  
FROM  
JANUARY 1, 1891, TO FEBRUARY 1, 1892.

WATER INCOME DEPARTMENT,  
BOSTON, Feb. 1, 1892.

HON. NATHAN MATTHEWS, JR.,

*Mayor of the City of Boston:*

SIR: The annual report of the Water Registrar required by Section 22, Chapter 3, of the Revised Ordinances, and covering a period of thirteen months to date, is herewith submitted:

COCHITUATE WORKS.

The total receipts of the Cochituate works for the thirteen months ending Feb. 1, 1892, have been . . . . . \$1,943,272 56

The detail of this amount is as follows:

Received from sales of water furnished in 1892 . . . . .	\$238,355 26
Received from sales of water furnished in 1891 . . . . .	1,436,312 16
<i>Amount carried forward,</i>	<u>\$1,674,667 42</u>

<i>Amount brought forward,</i>	\$1,674,667 42
Received from sales of water furnished in 1890 . . . . .	163,826 88
“ “ service-pipes and repairs . . . . .	3,079 83
“ “ sale of old material . . . . .	6,418 40
“ “ elevator, fire and motor pipes . . . . .	6,602 45
“ “ miscellaneous sources, and labor . . . . .	6,845 08
“ “ off and on water, for repairs . . . . .	1,898 50
“ “ off and on water, for non-payment . . . . .	1,104 00
“ “ fees . . . . .	1,701 50
“ “ rent of water-posts . . . . .	122 50
“ “ fines for waste . . . . .	6 00
“ “ sale of machine-shop . . . . .	62,000 00
“ “ high service in settlement of Fisher Hill suit . . . . .	15,000 00
	<u>\$1,943,272 56</u>

The expenditures of this department for the thirteen months ending Feb. 1, 1892, are as follows :

For salaries . . . . .	\$33,472 77
“ labor . . . . .	11,003 00
“ printing and stationery . . . . .	1,369 58
“ travelling expenses . . . . .	1,187 41
“ postage, telephone, etc. . . . .	219 90
Total . . . . .	<u>\$47,252 66</u>

The estimated income from all sources from the Cochituate department for the year 1892 is as follows :

From water-rates . . . . .	\$1,425,000 00
“ all other sources . . . . .	30,000 00
Total . . . . .	<u>\$1,455,000 00</u>

The total number of takers supplied by the Cochituate works is . . . . . 72,666  
 The total number of meters applied to premises of this system is . . . . . 3,838

The total number of cases and amounts abated during the year 1891 is as follows :

Cases . . . . .	3,959
Abated . . . . .	\$25,529 98
Remitted 10% discount . . . . .	\$93,970 43

The daily returns from the Service Division of this department represent a total of 12,398 orders received during the year, as follows :

Application for service-pipes . . . . .	2,502
“ “ turning on water for first time . . . . .	2,321
“ “ repairs in service-pipes . . . . .	1,910
“ “ off and on water for repairs . . . . .	4,521
“ “ off and on water for non-payment, . . . . .	1,144
Total . . . . .	12,398

The following table represents the classes of premises supplied with water to Feb. 1, 1892 :

Dwelling-houses . . . . .	40,173
Model houses . . . . .	7,283
Hand-hose, motors, and aquaria . . . . .	5,053
Stables . . . . .	2,647
Stores, shops, and offices . . . . .	7,196
Saloons and liquor stores . . . . .	448
Hotels and restaurants . . . . .	182
Buildings . . . . .	198
Laundries and bleacheries . . . . .	243
Churches and halls . . . . .	254
Engines and discharging engines . . . . .	102
Clubs and boat-houses . . . . .	49
Gymnasiums and ball-grounds . . . . .	3
Photographers . . . . .	12
Greenhouses . . . . .	72
Armories . . . . .	4
Depots and freight-houses . . . . .	30
Watering and signal stations . . . . .	2
Hospitals and asylums . . . . .	48
Libraries . . . . .	9
Cemeteries . . . . .	6
Bath-houses . . . . .	3
Fountains and drinking-fountains . . . . .	22
Court-houses . . . . .	7
Stone-crushers and steam-rollers . . . . .	19
Private and Primary schools . . . . .	106
Steam, fire, and chemical engines . . . . .	41



Hook and ladder and hose companies . . . . .	20
Washing carts . . . . .	3
Offal stations . . . . .	3
Disinfectant, morgue, and laboratory . . . . .	3
Public urinals . . . . .	22
Steamboats . . . . .	13
Street sprinklers . . . . .	16
Hydrants and reservoirs . . . . .	5,289
	69,581
Metered premises . . . . .	3,085
	72,666

## METERS.

There are now applied to the Cochituate works meters of the following sizes :

DATE.	6-in.	4-in.	3-in.	2-in.	1½-in.	1-in.	¾-in.	½-in.	¼-in.	Total.
Jan. 1, 1891 . . . . .	1	23	49	128	153	750	1,140	1,347	1	3,603
During 1891 . . . . .	...	3	9	24	35	50	157	34	...	312
Total . . . . .	1	26	58	162	188	800	1,297	1,381	1	3,914
Discontinued . . . . .	...	...	...	...	3	8	25	30	1	76
Total in use . . . . .	1	26	58	162	185	792	1,272	1,342	...	3,838

## STYLES AND SIZES OF METERS IN USE JAN. 31, 1892.

	6-in.	4-in.	3-in.	2-in.	1½-in.	1-in.	¾-in.	½-in.	¼-in.	Total.
Worthington . . . . .	...	10	24	112	99	580	437	115	...	1,357
Boston Water-Works . . . . .	...	...	...	...	...	...	466	...	...	466
Crown . . . . .	1	15	31	37	60	199	190	1,186	...	1,712
Hersey . . . . .	...	1	3	12	24	37	75	21	...	173
Thomson . . . . .	...	...	...	1	1	1	4	7	...	14
Metropolitan . . . . .	...	...	...	...	...	...	89	4	...	93
Miscellaneous . . . . .	...	...	...	...	1	2	11	9	...	22
Total . . . . .	1	26	58	162	185	792	1,272	1,342	...	3,838

Hydraulic motors . . . . .	97
Hydraulic elevators . . . . .	421

## COCHITUATE WORKS.

The following table exhibits the classes of premises to which meters are attached, the amount of water consumed, and the revenue received, for the years 1890 and 1891:

CLASS OF PREMISES.	1890.		1891.	
	Quantity used. Cubic feet.	Amount Assessed.	Quantity used. Cubic feet.	Amount Assessed.
Hotels . . . . .	35,546,000	\$43,944 30	37,439,000	\$46,580 80
Apartment Hotels . . . . .	42,612,000	57,623 10	45,569,000	60,283 30
Business Premises . . . . .	100,032 000	139,112 62	109,993,000	144,747 90
Steam Railroads . . . . .	47,874,000	52,467 20	49,208,000	53,963 50
Sugar Refineries . . . . .	29,389,000	35,369 10	33,161,000	28,482 80
Factories and Machine-shops . . . . .	36,003,000	47,157 90	43,335,000	51,055 40
Iron Works and Foundries . . . . .	2,428,000	3,108 80	3,638,000	4,650 00
Mills and Engines . . . . .	5,294,000	6,742 90	5,763,000	7,675 90
Marble and Stone Works . . . . .	3,173,000	4,047 35	2,008,000	2,555 00
Gas Companies . . . . .	15,648,000	17,580 10	12,156,000	14,182 60
Breweries . . . . .	13,275,000	16,345 90	16,570,000	20,358 50
Oil-works . . . . .	560,000	745 00	532,000	714 40
Chemical Works . . . . .	3,243,000	3,988 40	3,790,000	4,748 70
Laundries . . . . .	1,778,000	2,235 10	2,050,000	2,754 80
Restaurants . . . . .	7,554,000	10,186 70	6,992,000	9,350 20
Boarding-houses . . . . .	.....	.....	1,840,000	2,560 40
Saloons . . . . .	.....	.....	2,331,800	3,185 60
Stables . . . . .	24,764,000	32,567 00	28,332,000	33,793 70
Theatres and Halls . . . . .	1,531,000	2,045 70	1,560,000	2,078 70
Hospitals . . . . .	4,637,000	5,763 30	5,352,000	6,552 40
Schools . . . . .	5,238,000	7,026 05	6,705,000	7,550 60
City, State, and Government Buildings,	11,424,000	14,390 80	12,479,000	15,620 40
Steamers and Shipping . . . . .	14,893,000	19,079 99	19,846,000	24,507 30
Elevators and Motors . . . . .	20,480,000	27,239 75	27,390,000	36,584 00
Electric-light Companies . . . . .	11,208,000	13,624 80	13,479,000	16,098 80
Miscellaneous . . . . .	1,216,000	1,605 50	5,118,000	6,856 30
Total . . . . .	439,695,000	\$554,047 36	495,726,000	\$606,451 00

The following table exhibits the yearly revenue from the sale of Cochituate water since its introduction into the city, October 25, 1848 :

Received by Water Commissioners, as per

Auditor's report in 1848

					\$972 81
From January 1, 1849, to January 1, 1850	.				71,657 79
" " 1850,	"	1851	.		99,025 45
" " 1851,	"	1852	.		161,052 85
" " 1852,	"	1853	.		179,567 39
" " 1853,	"	1854	.		196,352 32
" " 1854,	"	1855	.		217,007 51
" " 1855,	"	1856	.		266,302 77
" " 1856,	"	1857	.		282,651 84
" " 1857,	"	1858	.		289,328 83
" " 1858,	"	1859	.		302,409 73
" " 1859,	"	1860	.		314,808 97
" " 1860,	"	1861	.		334,544 86
" " 1861,	"	1862	.		365,323 96
" " 1862,	"	1863	.		373,922 33
" " 1863,	"	1864	.		394,506 25
" " 1864,	"	1865	.		430,710 76
" " 1865,	"	1866	.		450,341 48
" " 1866,	"	1867	.		486,538 25
" " 1867,	"	1868	.		522,130 93
" " 1868,	"	1869	.		553,744 88
" " 1869,	"	1870	.		597,328 55
" " 1870,	"	1871	.		708,783 68
" " 1871,	"	1872	.		774,445 70
" " 1872,	"	1873	.		862,704 08
" " 1873,	"	1874	.		917,415 92
" " 1874,	"	1875	.		977,020 48
" " 1875,	"	1876	.		1,005,120 94
" " 1876,	"	1877	.		1,029,643 70
" " 1877,	"	1878	.		1,015,562 89
" " 1878,	"	1879	.		1,010,584 30
" " 1879,	"	1880	.		1,025,803 14
" " 1880,	"	1881	.		1,039,896 17
" " 1881,	"	1882	.		1,087,528 49
" " 1882,	"	1883	.		1,127,982 32
" " 1883,	"	1884	.		1,167,704 17
" " 1884,	"	1885	.		1,203,192 55
" " 1885,	"	1886	.		1,239,757 99
" " 1886,	"	1887	.		1,206,064 69
" " 1887,	"	1888	.		1,244,191 75
" " 1888,	"	1889	.		1,317,385 92
" " 1889,	"	1890	.		1,357,738 30
" " 1890,	"	1891	.		1,356,501 19
" " 1891, to February 1, 1892	.				1,943,272 56

Table showing the Number and Kind of Water Fixtures contained within the Premises of Water-takers to January 1, 1891.

	Taps.	Sinks.	Bowls.	WATER-CLOSETS.					Bath-tubs.	Wash-tubs.	Slop-hoppers.	Foot-tubs.	Urinals, Automatic.	Urinals, Plumb.	Private Hydrants.
				Street Pressure.	Tank Pressure.	Hopper.	Waste.	Plumb Vaults.							
Wards 1, 2, 6, 7 . . . . .	1,511	20,707	5,067	5,275	6,109	11	98	58	1,376	1,388	88	1	957	175	14
Wards 8, 9, 10, 11, 12 . . . . .	4,745	25,950	25,270	9,556	25,450	186	64	24	9,977	11,809	1,346	194	2,595	259	. . .
Wards 13, 14, 15, 16, 17 . . . . .	1,629	26,940	9,144	8,157	9,639	70	41	151	4,865	5,437	45	6	227	47	4
Wards 18, 19, 20, 21 . . . . .	3,265	22,580	17,496	7,183	14,575	10	13	57	9,808	13,508	123	27	226	36	1
Wards 22, 23, 24, 25 . . . . .	4,576	22,015	9,277	3,371	18,321	23	105	6	8,899	12,443	76	10	84	31	1
Totals . . . . .	15,726	119,792	66,263	33,542	74,194	309	316	296	34,915	44,490	1,623	237	4,089	548	20

## MYSTIC WORKS.

The total receipts of the Mystic Works,  
for the thirteen months ending Jan. 31,  
1892, have been . . . . . \$406,784 26

The detail of this amount is as follows :

Received from the sale of water in 1890 .	\$22,275 34
“ “ “ “ 1891 .	341,121 47
“ “ “ “ 1892 .	41,511 26
“ “ service and fire-pipes .	727 10
“ “ fees (summons) .	261 75
“ “ off and on water for repairs,	244 00
“ “ fines, non-payment .	126 00
“ “ rent of meters . . .	125 00
“ “ rent of water-posts . .	47 50
Add sundry receipts by Water Board .	344 84
Total . . . . .	<u>\$406,784 26</u>

The percentage allowed the cities of Somerville, Chelsea,  
and town of Everett under contract is as follows :

Somerville . . . . .	\$70,532 42
Chelsea . . . . .	42,510 65
Everett . . . . .	16,162 40
	<u>\$129,205 47</u>

The quantity used through meters in the different districts was as follows :

	1890.		1891.	
	Cubic feet.	Amount.	Cubic feet.	Amount.
Charlestown .....	43,414,506	\$51,096 43	43,833,585	\$51,529 90
Somerville .....	19,648,630	23,422 86	32,871,479	34,345 22
Chelsea .....	9,823,265	12,586 30	10,825,953	13,996 28
Everett .....	1,934,596	2,420 83	2,288,902	2,847 86
Total .....	74,820,997	\$89,526 42	89,814,919	\$102,719 26

The expenditures of this department for the thirteen months ending Feb. 1, 1892, are as follows :

For salaries . . . . .	\$9,707 08
Printing and stationery . . . . .	543 00
Travelling expenses . . . . .	121 00
Postage, telephone, etc. . . . .	343 69
Total . . . . .	<u>\$10,714 77</u>

The estimated income from all sources from the Mystic department for the year 1892 is as follows :

From water-rates . . . . .	\$388,000 00
“ all other sources . . . . .	2,000 00
Total . . . . .	<u>\$390,000 00</u>

The total number of takers supplied by Mystic works is . . . . .	26,823
The total number of meters now applied to premises of Mystic works is . . . . .	406

The total number of cases and amounts abated in the Mystic service during the thirteen months ending Feb. 1, 1892, is as follows :

	Cases.	Abated.	Ten per cent. Remitted.
Charlestown . . . .	367	\$1,800 21	\$7,881 14
Somerville . . . .	632	3,001 22	10,658 67
Chelsea . . . .	378	1,596 93	6,631 37
Everett . . . .	232	988 03	2,740 77
Totals . . . .	1,609	\$7,386 39	\$27,911 95

The daily returns from the Service Divisions, representing a total of 4,112 orders received during the thirteen months ending Feb. 1, 1892, is as follows :

Application for service pipes . . . . .	1,035
“ “ turning on water for first time . . . . .	1,028
“ “ repairs in service-pipes . . . . .	125
“ “ off and on water, for repairs . . . . .	542
“ “ “ “ non-payment . . . . .	258
“ “ “ “ vacants . . . . .	1,124
Total . . . . .	4,112

The following table represents the classes of premises supplied with water to Feb. 1, 1892 :

Dwelling-houses, 17,477	Street watering, 2
Model houses, 1,246	Fire hydrants, 1,014
Hand hose, 2,787	Water pressures, 28
Stables, 1,993	Buildings, 28
Stores and shops, 1,131	Stationary engines, 31
Offices, 112	Fountains, 17
Saloons, 67	Public parks, 6
Manufactories, 84	Gardens, 3
Churches, 50	Freight-houses, 10
Laundries, 61	Foundries, 1
Bakeries, 48	Cattle yards, 1
Halls and clubs, 74	Aquarium, 1
Hoisting-engines, 11	Depots, 4
Printing-offices, 10	Drinking-fountains, 16
Photograph saloons, 7	Water-posts, 64
Greenhouses, 20	
School-houses (not metered), 31	26,453
Engine-houses, 15	Metered premises, 370
Rock crushers, 3	
	Total, 26,823

## METERS.

There are now applied to the Mystic works meters of the following sizes :

DATE.	6-in.	4-in.	3-in.	2-in.	1½-in.	1-in.	¾-in.	½-in.	¼-in.	Total.
Jan. 1, 1891 . . . . .	2	15	10	49	6	109	102	98	...	391
During 1891 . . . . .	...	...	4	2	3	14	9	7	...	29
Total . . . . .	2	15	14	51	9	123	111	105	...	420
Discontinued . . . . .	...	1	1	4	1	5	8	4	...	24
Total in use . . . . .	2	14	13	47	8	118	103	101	...	406

## STYLES AND SIZES OF METERS IN USE JAN. 31, 1892.

	6-in.	4-in.	3-in.	2-in.	1½-in.	1-in.	¾-in.	½-in.	¼-in.	Total.
Worthington . . . . .	...	8	3	33	6	76	56	10	...	192
Boston Water-Works . . . . .	...	...	...	...	...	...	2	...	...	2
Crown . . . . .	2	5	9	9	2	33	48	39	...	197
Hersey . . . . .	...	1	...	2	2	6	...	...	...	11
Miscellaneous . . . . .	...	...	2	1	...	...	1	...	...	4
Total . . . . .	2	14	14	45	10	115	107	99	...	406

Hydraulic motors . . . . . 19  
 Hydraulic elevators . . . . . 2



## MYSTIC WORKS.

The following table exhibits the classes of premises to which meters are attached, the amount of water consumed, and the revenue received, for the years 1890 and 1891 :

CLASS OF PREMISES.	1890.		1891.	
	Quantity used. Cubic feet.	Amount assessed.	Quantity used. Cubic feet.	Amount assessed.
Steam Railroads . . . . .	26,149,782	\$29,406 34	27,309,368	\$30,292 05
Horse Railroads . . . . .	1,450,802	1,968 82	1,390,262	1,833 97
Hoosac Tunnel Dock and Elevator Co. .	1,556,070	1,965 78	1,814,000	2,238 00
City and Government Buildings . . . .	6,209,367	7,711 83	6,072,730	7,528 83
Schools . . . . .	1,149,740	1,258 24	770,289	1,143 65
Stables . . . . .	2,708,743	3,290 78	2,192,228	3,025 80
Factories . . . . .	7,924,547	10,442 16	9,091,714	11,733 75
Chemical Works . . . . .	1,411,000	1,717 20	1,531,390	1,861 68
Foundries . . . . .	1,004,495	1,378 14	901,236	1,232 50
Breweries . . . . .	1,118,620	1,404 51	1,420,171	1,786 04
Gas Companies . . . . .	829,710	1,073 65	1,263,333	1,572 50
Mills and Engines . . . . .	950,000	741 50	685,093	935 29
Hotels . . . . .	545,000	754 90	487,477	661 72
Model Houses . . . . .	989,460	1,283 74	966,899	1,315 26
McLean Insane Asylum . . . . .	1,701,000	2,065 20	1,945,000	2,356 00
Slaughter-houses . . . . .	11,355,800	13,040 16	23,330,249	22,073 48
Business Purposes . . . . .	1,192,500	1,663 29	2,967,241	3,752 78
Wharves . . . . .	1,208,750	1,472 20	915,194	1,206 29
Laundries . . . . .	485,763	650 39	951,084	1,145 49
Elevators and Motors . . . . .	668,715	916 55	672,670	914 66
Bakeries . . . . .	564,347	769 15	751,174	1,001 96
Restaurants . . . . .	40,000	56 00	189,000	260 90
Tanneries . . . . .	338,297	468 12	154,000	221 70
Miscellaneous . . . . .	3,487,389	3,987 77	2,024,117	2,624 14
Totals . . . . .	74,820,897	\$89,526 42	89,814,919	\$102,719 28

The following table exhibits the yearly revenue from the sale of Mystic water since its introduction, November 29, 1864 :

From November 29, 1864, to January 1, 1866,	\$22,419 55
“ January 1, 1866, to January 1, 1867 .	46,447 69
“ “ 1867, “ 1868 .	56,532 04
“ “ 1868, “ 1869 .	89,758 21
“ “ 1869, “ 1870 .	105,948 98
“ “ 1870, “ 1871 .	176,769 57
“ “ 1871, “ 1872 .	203,824 88
“ “ 1872, “ 1873 .	237,926 25
“ “ 1873, “ 1874 .	257,983 15
“ “ 1874, “ 1875 .	269,868 22
“ “ 1875, “ 1876 .	310,672 92
“ “ 1876, “ 1877 .	291,992 98
“ “ 1877, “ 1878 .	286,590 18
“ “ 1878, “ 1879 .	283,439 89
“ “ 1879, “ 1880 .	270,599 82
“ “ 1880, “ 1881 .	273,735 24
“ “ 1881, “ 1882 .	230,856 78
“ “ 1882, “ 1883 .	251,928 53
“ “ 1883, “ 1884 .	260,011 91
“ “ 1884, “ 1885 .	265,921 04
“ “ 1885, “ 1886 .	276,557 60
“ “ 1886, “ 1887 .	249,609 62
“ “ 1887, “ 1888 .	293,018 65
“ “ 1888, “ 1889 .	306,637 22
“ “ 1889, “ 1890 .	317,197 29
“ “ 1890, “ 1891 .	331,109 44
“ “ 1891, February 1, 1892 .	404,908 07

Table showing the Number and Kind of Water Fixtures contained within the Premises of Water-takers to January 1, 1892.

	Taps.	Sinks.	Bowls.	WATER-CLOSETS.						Wash-tubs.	Slop-hoppers.	Foot-tubs.	Urinals, Automatic.	Urinals, Plain.	Private Hydrants.
				Street Pressure.	Tank Pressure.	Hopper.	Waste.	Flush.	Flush Vault.						
Charlestown . . . . .	1,480	11,529	2,284	8,408	8,586	18	25	..	109	1,307	1,486	9	94	46	42
Chelsea . . . . .	1,180	8,741	2,314	2,888	2,828	5	16	..	84	1,583	1,550	6	51	37	11
Somerville . . . . .	2,678	12,290	4,302	2,714	6,007	19	43	..	19	3,985	3,765	20	59	25	8
Everett . . . . .	619	3,238	1,038	128	1,479	1	12	..	..	1,114	589	..	7	7	..
Totals . . . . .	5,975	35,807	9,998	8,658	13,900	38	96	..	162	7,939	7,890	35	211	115	61

Respectfully submitted,  
 WM. F. DAVIS,  
 Water Registrar.

[DOCUMENT 40 — 1892.]



ANNUAL REPORT  
OF THE  
WATER-SUPPLY DEPARTMENT,  
FOR THE YEAR 1891.

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OFFICE OF THE BOSTON WATER BOARD,  
CITY HALL, BOSTON, Feb. 1, 1892.

HON. NATHAN MATTHEWS, Jr.,

*Mayor of the City of Boston:*

SIR: The Boston Water Board, or Water Supply Department, submit their report for the thirteen months ending Jan. 31, 1892. In accordance with an order of the City Council approved Dec. 5, 1891, this report covers thirteen months instead of the calendar year, which must be kept in mind in comparing the financial figures herein set forth with those contained in the previous reports of this department.

The following is a comprehensive summary of the disbursements by the department for the said thirteen months ending Jan. 31, 1892:

Money expenditures, Cochituate Water-Works (see page 13) . . . . .	\$1,014,159 93
Money expenditures, Mystic Water-Works (see page 13) . . . . .	161,643 93
	<hr/>
	\$1,175,803 86
Add decrease in stock during year (see page 14) . . . . .	38,902 41
	<hr/>
	<u>\$1,214,706 27</u>
Current expenses, Cochituate Water-Works . . . . .	\$398,755 93
Current expenses, Mystic Water-Works . . . . .	163,723 80
Extension of Mains, etc. . . . .	311,129 80
Additional Supply of Water . . . . .	328,854 30
High service . . . . .	4,136 92
Shops, Albany street . . . . .	4,390 89
Introduction of meters and inspection, Cochituate . . . . .	3,207 14
Introduction of meters and inspection, Mystic . . . . .	507 49
	<hr/>
	<u>\$1,214,706 27</u>

We submit a brief summary of the principal facts of interest in relation to the work of the department, together with a detailed statement of the doings and condition of the separate divisions.

#### REVENUE.

The total receipts of the Cochituate Works from all sources for the thirteen months ending Jan. 31, 1892, have been \$1,946,446.16. Of this amount, \$1,838,494.30 was received from sales of water. No rebate was made on the bills for schedule rates issued Jan. 1, 1892, for the reason that it is deemed advisable in lieu thereof to make important reductions in the charges to certain of the city departments for the use of water.

#### MYSTIC DEBT.

The Sinking Fund for the payment of the Mystic Debt exceeds the amount of the debt \$68,208.70, and action should be taken by the City Council to make some disposition of the surplus revenue.

**WATER REGISTRAR'S DEPARTMENT.**

In 1890 the Water Registrar's Department was made a separate department by ordinance, under the name of the Water Income Department. In the opinion of this Board the practical working of this separation has been inconvenient and confusing, and interferes with an economical and efficient operation of the water service. By a consolidation of the Water Registrar's with this department a saving of at least \$10,000 could be effected.

**EASTERN DIVISION.**

On June 1, by appointment of the Board, Mr. William J. Welch assumed the duties of Superintendent of the Eastern Division in place of Mr. Dexter Brackett, resigned.

**EXTENSION OF MAINS.**

Twenty-one miles of pipe-mains have been laid during the thirteen months, and the total length now connected with the works is 518.79 miles; 2,374 service-pipes have been laid, and 327 hydrants have been put in service, making the present total number 5,705.

For the convenience of the Fire Department a series of maps has been prepared showing the location of all hydrants, and indicating the number of engines that could be massed at any given point.

**CONSUMPTION OF WATER.**

The daily average consumption per head of population on the Sudbury and Cochituate supply the past year has been 89.3 gallons, and on the Mystic supply 74.7 gallons, as against 82.5 and 70.6, respectively, the previous year. The yearly daily average consumption has been 37,686,900 gallons on the Cochituate and Sudbury, and 9,055,200 gallons on the Mystic, as against 33,871,700 and 8,301,400, respectively, in 1890.

**BASIN 6.**

The name of Basin 5 has been changed to Basin 6 for the sake of uniformity. The basins on the Stony-brook branch are now numbered with odd numbers, 1, 3, and 5, and those on the main branch of the Sudbury with even numbers, 2, 4, and 6. The work of construction on the basin has been prosecuted actively from the early spring until late in the fall. The excavation of the trench for the core-wall of the dam has been completed, the core-wall built and the trench refilled. The embankment and wall of the dam is now five

feet above the elevation of the lowest part of the valley, and will be nearly if not entirely completed by the end of another season. This work on the trench and wall of the dam has been done by day labor, as in the previous year, by the advice of the City Engineer. The work of stripping the basin and the shallow flowage has been divided into sections, and let by contract as follows :

	Estimated amounts.
Section A. Joseph Gennaro, 30½ cts. per cubic yard . . .	\$24,064 50
Section B. Auguste Saucier, 26 cts. per cubic yard . . .	21,502 00
Section C. Moulton, O'Mahony, & Trumbull, 40 cts. per cubic yard . . .	32,200 00
Section D. Moulton, O'Mahoney, & Trumbull, 62 cts. per cubic yard . . .	37,448 00

This contract work is well advanced, and will probably be completed by the end of another season.

Contracts have also been made for delivering filling for the dam (estimated amount \$57,300); for the supply of cut stone for the gate-chamber (\$2,234); and for the building of the lower section of the wasteway (estimated amount \$9,597.50.)

#### WHITEHALL POND.

At Whitehall pond surveys and borings are being made for a new dam at the outlet; a dredging-plant, consisting of a dredger and three scows, has been built; and in the spring the work of removing the mud and stumps from the bottom of this reservoir will be undertaken.

#### CEDAR SWAMP.

The surveys and plans for the acquisition and treatment of the so-called Cedar swamp, which have been delayed by the difficulties of the undertaking, are practically completed, and by the end of another year the Board hope to have begun the work of draining the 1,500 acres of marsh land at the sources of the Sudbury river, from which, as was stated in our last report, we believe that the Sudbury water acquires much of its discoloration and fecundancy in vegetable matter.

#### ADDITIONAL SUPPLY.

Surveys and borings have already been begun for Basins 5, 7, and 9 on the Stony-brook branch of the Sudbury river, as the growing needs of the city demand that these basins, which will be a continuous series, should be constructed without delay.

**MEASURES TO IMPROVE THE QUALITY OF THE SUPPLY.**

The main trunk sewer of the Marlboro' sewerage system has been completed and is in working order, and a few connections have already been made. The authorities of Marlboro' have promised that there shall be no delay in the matter of connections, and that by the end of another six months the sewage of that municipality will be diverted from Boston's water-supply. We have paid to Marlboro' the sum of \$41,333.33 due under our contract on the completion of the trunk sewer, and a further amount will be paid when a reasonable number of connections has been made. This will make the total sum contributed by Boston \$62,000. It is obvious that this removal of the sewage of 14,000 people outside the water-shed of the Sudbury river will be a very great benefit to the supply. The quality of the water in Basin 3, on the Stony-brook branch, has never been very good, owing to the close proximity of this basin to the city of Marlboro'. In fact, we have used Basin 3 as little as possible on this account.

A contract has been made between the city of Boston and the town of Westboro', situated near the head-waters of the Sudbury river, under which the city has agreed to contribute the sum of \$20,000 toward the expense of a sewerage system for that town, whereby the sewage of its 5,000 people will be diverted from the Sudbury water-shed. We are glad to report that the work of construction of this system has been pushed so rapidly that the main trunk sewer will be completed by the middle of the current month (February).

**THE FUTURE OF THE SUPPLY.**

With the addition of Basin 6 and the series of Basins 5, 7, 9, the storage capacity of the Sudbury and Cochituate supplies (49,000,000 gallons in a dry year) will have been exhausted. We have used, during the present year, on the Cochituate and Sudbury supplies, which furnish water to every district of the city excepting Charlestown, a daily average of 37,686,900 gallons, from which it appears that there is a leeway of less than 12,000,000 gallons between the present necessities and the limit of Boston's water-supply. Of course, in ordinary years, the Sudbury and Cochituate water-sheds yield far more than 49,000,000 gallons, but in a season of drought only 49,000,000 can be counted on. Judging from the ratio of increase of our population we have a sufficient water-supply for ten years, assuming that we have to supply no greater territory, through annexations or otherwise, than at present, and



assuming that the water-takers of Charlestown continue to be satisfied with Mystic water. By the end of ten years, however, we shall, in all probability, need an additional supply, and we shall need at that time not merely to know where to go for it, but to have the work of construction well under way and at least a portion of the new supply available for use. In other words, the city ought by the end of another five years to decide upon the source of supply which seems most available in order to allow for the inevitable delays which must ensue before the necessary legislation can be obtained and the consequent loans authorized.

With this end in view, the present Board have already begun to examine into the question of a future supply. During the past six months visits have been made to Lake Winnipiseogee, the Nashua river, and the Deerfield river, and a series of investigations has been mapped out for the ensuing year. It is too early as yet to make any definite statements concerning a probable choice; but we desire to call attention to the fact that we have the subject under careful consideration. It is undoubtedly true that the rapid growth of neighboring cities and towns is making the problem of a sufficient water-supply for these communities more perplexing from year to year, and it seems not improbable that Boston's future supply may have to be of a metropolitan character; that is to say, of sufficient capacity to relieve other needs than our own.

## MAINTENANCE ACCOUNTS, COCHITUATE WATER- WORKS.

(FROM REVENUE.)

JANUARY DRAFT, 1891, TO FEBRUARY DRAFT, 1892 (13 MOS.).

### *Boston Water Board:*

Salaries of two Commissioners, two Clerks, Purchasing Agent, and Messenger . . . . .	\$14,123 05	
Travelling expenses . . . . .	1,966 92	
Printing and stationery . . . . .	521 11	
Advertising, postage, and miscellaneous, . . . . .	942 67	
		<hr/>
		\$17,553 75

### *Eastern Division:*

Salaries of Superintendents, Clerks, and Foreman . . . . .	\$22,352 18	
Travelling expenses and transportation of men . . . . .	1,147 54	
		<hr/>
<i>Carried forward,</i>	\$23,499 72	\$17,553 75

<i>Brought forward,</i>	\$23,499 72	\$17,553 75
Printing and stationery . . . . .	639 63	
Miscellaneous . . . . .	544 29	
	<hr/>	24,683 64

*Western Division :*

Salaries of Superintendent, Assistant Superintendent, and Clerks . . . . .	\$25,400 99	
Travelling expenses . . . . .	2,303 82	
Printing and stationery . . . . .	500 40	
Miscellaneous . . . . .	372 17	
	<hr/>	28,577 38
New meters and setting . . . . .		8,449 24
Meters, repairing . . . . .		14,418 24
Workshop, blacksmith-shop, etc., Federal st. (property sold April 23, 1891) . . . . .		2,802 33
Machine-shop, Albany st. . . . .		8,402 97
Telephones . . . . .		1,539 80
Special agents, salaries, travelling expenses, etc. . . . .		2,387 13
Cochituate Aqueduct . . . . .		3,264 66
Sudbury Aqueduct (including \$16,590.68 for lining tunnel) . . . . .		21,673 27
Main pipe relaying (including stock and labor) . . . . .		9,180 83
“ repairing “ “ “ “ . . . . .		7,073 76
Hydrants “ “ “ “ “ . . . . .		32,147 79
Stopcocks “ “ “ “ “ . . . . .		3,282 02
Hydrant and stopcock boxes, and repairing (including stock and labor) . . . . .		5,542 46
Tools and repairing (including stock and labor) . . . . .		10,244 56
Streets “ “ “ “ “ . . . . .		7,933 33
Fountains, “ “ “ “ “ . . . . .		3,678 85
Stables, “ “ “ “ “ . . . . .		15,729 59
Waste-detection “ “ “ “ “ . . . . .		20,166 91
Basins, Framingham and Ashland (including stock and labor) . . . . .		21,945 46
Service-pipe repairing (including stock and labor) . . . . .		19,608 14
Protection of Sudbury and Cochituate supply . . . . .		2,976 91
Inspection of water sources . . . . .		1,099 60
High service, Chestnut hill (including fuel, salaries, repairs, etc.) . . . . .		21,147 61
High service, East Boston (including fuel, salaries, repairs, etc.) . . . . .		2,860 04
High service, West Roxbury (including fuel, salaries, repairs, etc.) . . . . .		3,213 97
Albany-street yard . . . . .		9,746 99
Chestnut-hill Reservoir (including stable, care of grounds, etc.) . . . . .		18,265 61
Parker-hill Reservoir . . . . .		1,828 38
Brookline Reservoir . . . . .		2,182 15
East Boston and South Boston Reservoirs . . . . .		3,424 57
Fisher-hill Reservoir . . . . .		1,746 26

*Carried forward,***\$358,778 20**

<i>Brought forward,</i>	\$358,778 20
Lake Cochituate . . . . .	5,962 79
Chestnut-hill driveway . . . . .	12,330 59
Taxes . . . . .	1,995 36
Damages . . . . .	5,344 18
Analyses of water, etc. . . . .	680 00
Merchandise sold (pipes and castings, in cases of emergency) . . . . .	182 04
Filtration . . . . .	7,869 76
Biological Laboratory . . . . .	2,111 87
New dam at Lake Cochituate (balance) . . . . .	3,501 14
	<hr/>
	\$398,755 93
	<hr/>

## MAINTENANCE ACCOUNTS, MYSTIC WATER-WORKS.

(FROM REVENUE.)

JANUARY DRAFT, 1891, TO FEBRUARY DRAFT, 1892 (13 mos.).

### *Boston Water Board:*

Salaries of one Commissioner and one Assistant Clerk . . . . .	\$5,200 00	
Printing and stationery . . . . .	38 40	
Travelling expenses and miscellaneous, . . . . .	237 58	
	<hr/>	\$5,475 98

### *Superintendent's Department:*

Salaries of Superintendent, Assistant Superintendent, and Clerk . . . . .	\$6,480 44	
Printing and stationery . . . . .	94 48	
Travelling expenses . . . . .	67 50	
Miscellaneous . . . . .	30 35	
	<hr/>	6,672 77
Engineer's Department . . . . .	3,403 67	
Meters, setting and repairing . . . . .	2,233 53	
Off and on water (labor) . . . . .	4,067 62	
Main-pipe laying (including stock and labor), . . . . .	2,162 11	
" relaying " " " . . . . .	7,828 98	
" repairing " " " . . . . .	1,635 76	
Service-pipe laying " " " . . . . .	1,837 26	
" repairing " " " . . . . .	2,787 29	
Hydrants and gates, repairing (including stock and labor) . . . . .	5,259 80	
Streets, repairing (including stock and labor) . . . . .	656 04	
Lake . . . . .	11,234 52	
Conduit . . . . .	1,646 97	
New meters and setting . . . . .	395 52	
Stables . . . . .	5,892 90	
Reservoir . . . . .	4,618 85	
Pumping service (salaries, wages, fuel, repairs, etc.), . . . . .	45,399 58	

*Carried forward,* \$113,209 15

<i>Brought forward,</i>	\$113,209 15
Repair-shop . . . . .	1,846 89
Fountains . . . . .	1,022 18
Tools and repairing . . . . .	577 39
Mystic Sewer (repairs, and pumping and treatment of sewage) . . . . .	22,034 72
Waste Detection Service . . . . .	7,582 74
Protection of water sources (including salaries of three Special Agents on Pollution) . . . . .	5,821 31
Analyses of Water . . . . .	150 00
Filtration . . . . .	1,032 89
Damages . . . . .	10,173 46
Merchandise sold . . . . .	273 07
	<hr/>
	\$163,723 80

DETAILED EXPENDITURES UNDER THE SEVERAL  
APPROPRIATIONS.

(FROM LOANS.)

JANUARY DRAFT, 1891, TO FEBRUARY DRAFT, 1892 (13 mos.).

*Extension of Mains:*

Labor . . . . .	\$100,717 74
Teaming . . . . .	6,262 23
Blasting . . . . .	11,070 75
Water-pipes, contracts . . . . .	105,494 07
Stock . . . . .	43,301 30
Miscellaneous . . . . .	78 93
	<hr/>
	\$270,085 27
Stock paid for in previous years (additional) . . . . .	41,044 53
	<hr/>
	\$311,129 80

*Additional Supply of Water:*

(Account of Basin No. 6, Whitehall pond, Cedar swamp, etc.)

Salaries and labor . . . . .	\$101,514 29
Materials . . . . .	29,875 50
Contract, 3 roads in Ashland and Hopkinton (balance) . . . . .	5,740 15
Contract, filling on Dam No. 6 (on account) . . . . .	4,671 15
Contract, cut stone, gate-chamber, Dam 6 . . . . .	2,234 00
Contract, stripping Section A, Basin 6 (on account) . . . . .	14,710 63
Contract, stripping Section B, Basin 6 (on account) . . . . .	8,925 09

<i>Carried forward,</i>	\$167,670 81
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<i>Brought forward,</i>	\$167,670 81	
Contract, stripping Section C, Basin 6 (on account) . . . . .	13,167 86	
Contract, stripping Section D, Basin 6 (on account) . . . . .	21,878 93	
Contract, lower section, wasteway, Dam 6 . . . . .	9,761 09	
City of Marlboro' on account of con- tract for a sewerage system to pro- tect city water-supply . . . . .	41,333 33	
Engineering and supplies . . . . .	16,206 87	
Land damages . . . . .	32,450 00	
Teaming . . . . .	19,808 91	
Freights and express . . . . .	1,615 10	
Travelling expenses . . . . .	1,234 99	
Printing, stationery, and advertising . . . . .	539 25	
Miscellaneous . . . . .	3,187 16	
	<hr/>	\$328,854 30

*High Service :*

Labor on foundation for additional pumping-engine at Chestnut-hill station . . . . .	\$697 78	
Stock, account extension of fire-ser- vice . . . . .	2,308 18	
Design and drawings for additional pumping-engine (on account) . . . . .	1,130 96	
	<hr/>	\$4,136 92

*Introduction of Meters and Inspec-  
tion, Cochituate Water-Works :*

New meters and setting from stock paid for in previous years . . . . .	\$3,207 14
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*Introduction of Meters and Inspec-  
tion, Mystic Water-Works :*

New meters and setting from stock paid for in previous years . . . . .	\$507 49
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*Shops, Albany Street :*

Contract for engine . . . . .	\$1,438 97	
“ for two boilers . . . . .	1,730 00	
“ for steam-blower . . . . .	1,200 00	
Miscellaneous items . . . . .	21 92	
	<hr/>	\$4,390 89

# COST OF CONSTRUCTION, AND CONDITION OF THE WATER DEBTS.

Cost of construction of Cochituate Works  
to Jan. 1, 1891 (including \$453.99  
omitted in last report) . . . . \$20,995,015 00

Expended from Jan. 1, 1891, to Feb. 1,  
1892 (13 months), as follows, viz.:

Additional Supply of Water .	\$328,854 30	
Extension of Mains, etc. .	311,129 80	
High service . . . .	4,136 92	
Shops, Albany street . .	4,390 89	
	<hr/>	648,511 91

Cost of construction of Cochituate Water- Works to Feb. 1, 1892 . . . .	\$21,643,526 91
	<hr/>

The outstanding Cochituate Water Loans Jan. 1, 1891, were . . . .	\$16,246,273 98
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Issued during the year 1891, as follows:

Appropriation,	{	Additional Supply of Water, 4% Loans .	\$137,500 00	
		Extension of Mains, etc., 4% Loans .	100,000 00	
			<hr/>	\$237,500 00
Paid during year 1891 . . . .			60,000 00	
			<hr/>	177,500 00

Total Cochituate Debt, Feb. 1, 1892 . .	<u>\$16,423,773 98</u>
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Cochituate Water Sinking-Fund, Jan. 1, 1891 . . . . .	\$5,854,530 21
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Cochituate Water Sinking-Fund, Feb. 1, 1892 . . . . .	6,471,545 34
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Net Cochituate Water Debt, Jan. 1, 1891 .	10,391,743 77
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“ “ “ “ Feb. 1, 1892 .	<u>9,952,228 64</u>
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Cost of construction of Mystic Works to Jan. 1, 1891 . . . . .	\$1,708,781 59
Cost of construction of Mystic Works to Feb. 1, 1892 . . . . .	<u>1,710,943 70</u>

The outstanding Mystic Water Loans, Jan. 1, 1891, were . . . . .	\$739,000 00
Paid during year 1891 . . . . .	<u>257,000 00</u>

Total Mystic Debt, Feb. 1, 1892 . . . . .	<u>\$482,000 00</u>
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Mystic Water Sinking-Fund, Jan. 1, 1891 . . . . .	\$719,722 81
“ “ “ Feb. 1, 1892 . . . . .	<u>550,208 70</u>

Net Mystic Water Debt, Jan. 1, 1891 . . . . .	\$19,277 19
“ “ “ “ Feb. 1, 1892 . . . . .	<u>0,000 00</u>

**TOTAL MONEY EXPENDITURES, COCHITUATE WATER-  
WORKS, FROM JANUARY 1, 1891, TO FEBRUARY  
1, 1892.**

Stock . . . . .	\$133,881 14
Labor . . . . .	389,089 31
Salaries . . . . .	69,728 68
Travelling expenses . . . . .	11,071 39
Printing . . . . .	1,480 06
Stationery . . . . .	578 68
Advertising . . . . .	843 35
Postage . . . . .	160 50
Freights and express . . . . .	2,168 39
Rents . . . . .	4,158 04
Gas . . . . .	283 68
Teaming . . . . .	28,945 70
Repairs . . . . .	17,853 04
Land damages, etc. . . . .	32,450 00
Taxes . . . . .	1,995 36
Miscellaneous . . . . .	11,046 45
Inspection of pipes . . . . .	2,143 99
Blasting . . . . .	11,302 54
Water-pipe contracts . . . . .	114,766 36
Coal and wood . . . . .	4,844 05
Pumping Service, salaries . . . . .	11,247 45
“ “ fuel . . . . .	6,231 82
“ “ repairs . . . . .	810 28
“ “ oils, etc. . . . .	581 97
“ “ small supplies . . . . .	<u>330 11</u>

*Carried forward,*

\$857,992 34

<i>Brought forward,</i>	\$857,992 34
Miscellaneous contracts . . . . .	130,933 72
Engineering . . . . .	18,486 91
Engineering supplies . . . . .	479 88
Hay and grain . . . . .	6,267 08
	<hr/>
	<b>\$1,014,159 93</b>
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**TOTAL MONEY EXPENDITURES, MYSTIC WATER-  
WORKS, FROM JANUARY 1, 1891, TO FEBRUARY 1,  
1892.**

Stock . . . . .	\$7,444 19
Labor . . . . .	47,685 35
Salaries . . . . .	27,175 51
Advertising . . . . .	37 83
Printing . . . . .	105 25
Stationery . . . . .	53 81
Gas . . . . .	68 80
Postage . . . . .	14 50
Travelling expenses . . . . .	2,063 90
Coal and wood . . . . .	337 97
Freights and express . . . . .	26 18
Teaming . . . . .	7 50
Hay and grain . . . . .	967 59
Damages . . . . .	10,173 46
Repairs . . . . .	3,018 54
Miscellaneous . . . . .	814 15
Water-pipe contract . . . . .	3,044 74
Telephones . . . . .	328 81
Pumping Service, salaries . . . . .	11,895 64
"    "    fuel . . . . .	16,942 95
"    "    repairs . . . . .	1,076 09
"    "    oils, etc. . . . .	996 71
"    "    small supplies . . . . .	531 89
"    "    new machinery . . . . .	8,789 80
Engineering . . . . .	2,287 00
Mystic Sewerage Station, viz. :	
Salaries and wages . . . . .	10,681 17
Fuel . . . . .	1,031 63
Chemicals . . . . .	2,626 26
Repairs . . . . .	153 03
Small supplies . . . . .	1,164 68
New machinery . . . . .	99 00
	<hr/>
	<b>\$161,643 39</b>
	<hr/>



## STATEMENT OF STOCK ACCOUNTS.

		Increase.	Decrease.
<b>Cochituate Water-Works, viz. :</b>			
Stock on hand Dec. 1, 1890 . . .	\$14,835 57		
" " " Jan. 1, 1892 . . .	25,080 37		
Increase during year . . .	<u>\$10,244 80</u>	\$10,244 80	
<b>Mystic Water-Works, viz. :</b>			
Stock on hand Dec. 1, 1890 . . .	\$7,285 72		
" " " Jan. 1, 1892 . . .	5,205 85		
Decrease during year . . .	<u>\$2,079 87</u>		\$2,079 87
<b>Extension of Mains, etc., viz. :</b>			
Stock on hand Dec. 1, 1890, as per last report . . .	\$35,758 17		
Accumulation of stock from special appropriations in previous years, not heretofore included in the Stock Account of the books at the Water Board office . . .	102,630 98		
Actual stock on hand Dec. 1, 1890 . . .	\$138,389 15		
Stock on hand Jan. 1, 1892 . . .	97,344 62		
Actual decrease during year . . .	<u>\$41,044 53</u>		41,044 53
<b>High Service, viz. :</b>			
Stock on hand Dec. 1, 1890 . . .	\$6,951 57		
" " " Jan. 1, 1892 . . .	4,643 39		
Decrease during year . . .	<u>\$2,308 18</u>		2,308 18
<b>Introduction of Meters and Inspection, Cochituate Water-Works, viz. :</b>			
Stock on hand Dec. 1, 1890 . . .	\$3,207 14		
Stock on hand Jan. 1, 1892 . . .	0,000 00		
Decrease during year . . .	<u>\$3,207 14</u>		3,207 14
<b>Introduction of Meters and Inspection, Mystic Water-Works, viz. :</b>			
Stock on hand Dec. 1, 1890 . . .	\$507 49		
" " " Jan. 1, 1892 . . .	000 00		
Decrease during year . . .	<u>\$507 49</u>		507 49
	<u>\$10,244 80</u>	<u>\$49,147 21</u>	
Total decrease in stock during year . . .			<u>\$38,902 41</u>

**Account of Expenditures on Additional Supply Appropriation (Dec., 1889), \$1,045,000.**

	From Jan. 1, 1890, Draft to Jan. 1, 1891, inclusive. <b>1891.</b>	From Feb. 1, 1891, to Jan. 1, 1892, inclusive. <b>1892.</b>	Total to date of Jan. 31, 1892.
<i><b>Basin 6 :</b></i>			
Engineering . . . . .	\$7,576 21	\$4,552 29	\$12,128 50
Contracts on Basin . . . . .	22,247 67	64,422 66	86,670 33
City Labor. Superintendent's monthly rolls	200 99	448 00	648 99
Labor and teaming . . . . .	8,078 91	12,705 07	20,783 98
Materials, Supplies, and Miscellaneous . . .	4,418 51	10,284 09	14,702 60
<b>Totals . . . . .</b>	<b>\$42,522 29</b>	<b>\$92,412 11</b>	<b>\$134,934 40</b>
<i><b>Dam 6 :</b></i>			
Engineering . . . . .	4,229 53	6,671 67	10,901 20
Contracts on Dam . . . . .	17,479 27	20,547 97	38,027 24
City Labor { Monthly Rolls . . . . .	3,335 20	3,539 73	6,874 93
{ Labor and Teaming . . . . .	89,283 15	84,534 61	173,817 76
Supplies and Miscellaneous . . . . .	49,134 31	20,892 19	70,026 50
<b>Totals . . . . .</b>	<b>\$163,461 46</b>	<b>\$136,186 17</b>	<b>\$299,647 63</b>
<i><b>Whitehall Pond :</b></i>			
Engineering . . . . .	1,784 18	1,276 83	3,061 01
Contract (dredging plant) . . . . .		5,526 70	5,526 70
City labor ( " " ) . . . . .		5,649 00	5,649 00
Supplies and Miscellaneous . . . . .	2,137 99	2,772 15	4,910 14
<b>Totals . . . . .</b>	<b>\$3,922 17</b>	<b>\$15,224 68</b>	<b>\$19,146 85</b>
<i><b>Cedar Swamp :</b></i>			
Engineering . . . . .	2,570 64	2,128 11	4,698 75
Supplies and Miscellaneous . . . . .	1,308 41	94 06	1,397 46
Land Damages . . . . .		15,750 00	15,750 00
<b>Totals . . . . .</b>	<b>\$3,874 06</b>	<b>\$17,972 16</b>	<b>\$21,846 21</b>
<i><b>Chattanooga :</b></i>			
Engineering . . . . .		78 00	78 00
Land . . . . .		16,000 00	16,000 00
<b>Totals . . . . .</b>		<b>\$16,078 00</b>	<b>\$16,078 00</b>

**Account of Expenditures on Additional Supply Appropriation. — (Continued).**

	From Jan. 1, 1890, Draft to Jan. 1, 1891, inclusive. <b>1891.</b>	From Feb. 1, 1891, to Jan. 1, 1892, inclusive. <b>1892.</b>	Total to date of Jan. 31, 1892.
<i>City of Marlboro' :</i>			
Drainage . . . . .		\$41,333 33	\$41,333 33
<i>Basin 5 :</i>			
Engineering . . . . .		514 00	514 00

**RECAPITULATION.**

Basin 6 . . . . .	\$42,522 29	\$92,412 11	\$134,934 40
Dam 6 . . . . .	163,461 46	136,186 17	299,647 63
Whitehall Pond . . . . .	3,922 17	15,224 68	19,146 85
Cedar Swamp . . . . .	3,874 06	17,972 16	21,846 21
Chattanooga . . . . .		16,078 00	16,078 00
City of Marlboro' . . . . .		41,333 33	41,333 33
Basin 5 (Surveys) . . . . .		514 00	514 00
<b>Totals . . . . .</b>	<b>\$218,779 97</b>	<b>\$319,720 45</b>	<b>\$538,500 42</b>

# WATER-SUPPLY DEPARTMENT.

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Contracts Made and Pending during Year commencing January 1, 1891, and ending January 31, 1892.

DATE.	CONTRACTORS.	WORK.	AMOUNT.	PAID ON CONTRACT.		
				Previous Years.	Year 1891.	Total.
1890.						
*Jan. 11,	R. D. Wood & Co. . . . .	Water-pipes and Special Castings . . . . .	\$30.34 per ton of 2,240 lbs. . . . .	\$77,330 50	\$11,438 84	\$88,769 43
*Mar. 10,	Osgood & Hart . . . . .	Iron and service-box castings, year ending Mar. 15, '91, { Iron castings, 2c. per lb. Service-box castings, 2½c. per lb. }		7,209 70	4,204 22	11,413 92
* " 15,	Boston Standard Metal Co.	Brass castings for year ending Mar. 15, 1891 . . . . .	{ Composition, No. 1, 21c. per lb. Composition, No. 2, 19c. per lb. Composition, No. 3, 17½c. per lb. }	5,718 64	2,058 71	7,777 35
* " 19,	R. D. Wood & Co. . . . .	Water-pipes and Special Castings . . . . .	\$31.40 per ton of 2,240 lbs. . . . .	41,000 04	5,777 07	46,867 11
*Apr. 22,	Roberts Iron Works Co. . . . .	Three boilers, Mystic Pumping Station . . . . .	\$8,465.00 . . . . .	.....	8,502 82	8,502 82
* " 26,	D. H. Cram . . . . .	Rental of derricks for use at Basin 5 . . . . .	\$200 each 1st year, \$100 each after. (Estimated) \$21,285 . . . . .	1,600 00	300 00	1,900 00
*May 2,	Newell and Sawling . . . . .	Three roads, Ashland and Hopkinton . . . . .	\$1,730 . . . . .	21,575 67	5,740 15	27,315 82
* " 10,	E. Hodge & Co. . . . .	Two boilers, machine-shop, Albany street . . . . .	\$1,730 . . . . .	.....	1,730 00	1,730 00
* " 28,	Darrow, Mann, & Co. . . . .	2,400 tons Cumberland coal, Mystic Pumping Station, Heating apparatus, shop, Albany street . . . . .	\$3.80 per ton 2,240 lbs. on cars . . . . .	5,563 58	3,728 09	9,291 67
*Sept. 12,	B. F. Sturtevant & Co. . . . .	2,500 barrels cement, Dam 5 . . . . .	\$1,200.00 . . . . .	.....	1,200 00	1,200 00
* " 26,	Waldo Bros. . . . .	Twenty 6x6 3-way branches, 2½c. per lb. delivered . . . . .	\$1.14 per bbl. deliv'd at Ashland . . . . .	1,140 00	1,710 00	2,850 00
*Oct. 16,	Mellert Foundry and Machine Co. . . . .	Blasting, Dean avenue, Dorchester . . . . .	\$99.81 . . . . .	.....	90 81	90 81
* " 31,	William T. Davern . . . . .	Blasting, court off Dorchester avenue . . . . .	\$2.75 per cubic yard . . . . .	.....	117 15	117 15
* " 31,	James McLaughlin & Son . . . . .	Blasting, Granger street, Roxbury . . . . .	\$3.95 per cubic yard . . . . .	.....	152 08	152 08
*Nov. 3,	James F. Davern . . . . .	Blasting, Granger street, Roxbury . . . . .	\$3.10 per cubic yard . . . . .	.....	175 46	175 46

## Contracts Made and Pending during Year. — Continued.

DATE.	CONTRACTORS.	WORK.	AMOUNT.	PAID ON CONTRACT.		
				Previous Years.	Year 1801.	Total.
1800.						
*Nov. 3.	Martin F. Kelley . . . . .	Blasting, Holborn place, Roxbury . . . . .	\$2.04 per cubic yard . . . . .	.....	\$62 57	\$62 57
* " 21.	Martin F. Kelley . . . . .	Blasting, Hartford terrace, Dorchester . . . . .	\$4.50 per cubic yard . . . . .	.....	30 00	30 00
*Dec. 1.	Thomas Burke . . . . .	Blasting, Dean avenue, Dorchester . . . . .	\$4.00 per cubic yard . . . . .	.....	43 00	43 00
1801.						
Jan. 1.	R. D. Wood & Co. . . . .	Water-pipes and Special Castings . . . . .	\$27.95 per ton 2,240 lbs. . . . .	.....	87,463 94	
* " 21.	Yale and Towne Manufacturing Co. . . . .	Overhead Track, machine-shop, Albany street . . . . .	\$723.00 f.o.b. at works . . . . .	.....	723 00	723 00
† " 29.	Charles H. Hale . . . . .	Filling on Dam No. 5, Ashland . . . . .	(Estimated) \$37,300 . . . . .	.....	2,739 09	
*Feb. 20.	R. D. Wood & Co. . . . .	75 tons 36-inch pipe, and 5 tons Specials, Dam No. 6, Ashland.	{ \$27.00 per ton pipe. On cars in } { \$62.72 per ton specials. On cars } { In Ashland. }	.....	2,303 63	2,303 63
* " 25.	McNeal Pipe and Foundry Co. . . . .	12 tons 48-inch Specials for Dam No. 5 . . . . .	\$58.80. On cars in Ashland . . . . .	.....	711 88	711 88
* " 25.	Cape Ann Granite Co. . . . .	Furnishing cut granite at Dam No. 5 . . . . .	\$2,234.00 . . . . .	.....	2,234 00	2,234 00
*Mar. 2.	Martin F. Kelley . . . . .	Blasting, Humboldt avenue, Roxbury . . . . .	\$4.45 per cubic yard . . . . .	.....	2,014 37	2,014 37
" 6.	Pierce F. Lonergan . . . . .	Teaming pipes, etc., for year ending Mar. 15, 1802 . . . . .	{ 74c. per ton 2½ miles. \$1.35 per ton over 2½ miles. }	.....	3,643 17	
" 9.	Osgood & Hart . . . . .	Iron and Service Box-castings . . . . .	2c. per lb. . . . .	.....	10,374 25	
" 9.	William Curley . . . . .	Brass Castings . . . . .	{ Composition, No. 1, 18½c. per lb. Composition, No. 2, 16½c. per lb. Composition, No. 3, 12c. per lb. }	.....	3,789 08	

# WATER-SUPPLY DEPARTMENT.

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[illegible]

Contracts marked with (\*) are completed.

**† Forfeited.**

Contracts Made and Pending during Year. — *Concluded.*

DATE.	CONTRACTORS.	WORK.	AMOUNT.	PAID ON CONTRACT.		
				Previous Years.	Year 1891.	Total.
1891.						
July 15,	{ Moulton, O'Mahoney, & Trumbull . . . . . }	Excavation, Section C, Basin No. 6 . . . . .	40 cents per cubic yard . . . . .	. . . . .	\$13,167 86	
" 15,	{ Moulton, O'Mahoney, & Trumbull . . . . . }	Excavation, Section D, Basin No. 6 . . . . .	62 cents per cubic yard . . . . .	. . . . .	21,878 93	
" 15,	David S. B. Chew . . . . .	350 tons 12-in. A pipes . . . . .	\$27.25 per ton, delivered . . . . .	. . . . .	9,648 58	\$9,648 58
" 18,	Martin F. Kelley . . . . .	Blasting, Granger street, Roxbury . . . . .	\$4.50 per cubic yard . . . . .	. . . . .	109 35	109 35
" 20,	Martin F. Kelley . . . . .	Blasting, Dalmatia street, Roxbury . . . . .	\$4.85 per cubic yard . . . . .	. . . . .	37 83	37 83
" 30,	David Truendale . . . . .	Blasting, Hawthorne avenue, Roxbury . . . . .	\$3.50 per cubic yard . . . . .	. . . . .	55 30	55 30
*Aug. 6,	Martin F. Kelley . . . . .	Blasting, street off Norfolk street, Dorchester . . . . .	\$5.85 per cubic yard . . . . .	. . . . .	35 86	35 86
" 12,	Martin F. Kelley . . . . .	Blasting, Selbirk road, Brighton . . . . .	\$5.50 per cubic yard . . . . .	. . . . .	58 30	58 30
" 15,	Thomas Burke . . . . .	Blasting, Mt. Everett street, Dorchester . . . . .	\$3.38 per cubic yard . . . . .	. . . . .	84 50	84 50
" 25,	Patrick Connell . . . . .	Blasting, Dalmatia street, Dorchester . . . . .	\$3.00 per cubic yard . . . . .	. . . . .	26 70	26 70
*Sept. 11,	Martin F. Kelley . . . . .	Blasting, Tilston avenue, Dorchester . . . . .	\$2.99 per cubic yard . . . . .	. . . . .	93 89	93 89
" 11,	R. F. Keough . . . . .	{ One Mud-scow for Whitehall pond (launched at Whitehall pond) . . . . . }	\$1,438.35 . . . . .	. . . . .	1,438 35	1,438 35
" 17,	Pierce F. Lonergan . . . . .	Blasting, Fuller street, Dorchester . . . . .	\$5.00 per cubic yard . . . . .	. . . . .	25 50	25 50
" 19,	Patrick Connell . . . . .	Blasting, Centre street, West Roxbury . . . . .	\$3.50 per cubic yard . . . . .	. . . . .	47 96	47 96
" 28,	Pierce F. Lonergan . . . . .	Blasting, Centre street, West Roxbury . . . . .	\$3.49 per cubic yard . . . . .	. . . . .	106 79	106 79
" 28,	R. F. Keough . . . . .	{ One Mud-scow (additional) for Whitehall pond (launched at pond) . . . . . }	\$1,438.35 . . . . .	. . . . .	1,438 35	1,438 35

[illegible]

Contracts marked with star (\*) are completed.



## GENERAL STATISTICS.

SCARBURY AND COCHITUATE WORKS.	1889.	1890.	1891.
Daily average consumption in gallons . .	32,070,000	33,371,700	37,006,960
Daily average consumption in gallons per inhabitant . . . . .	80.3	82.5	89.3
Daily average amount used through meters, gallons . . . . .	8,118,800	9,034,800	10,186,400
Percentage of total consumption metered,	25.3	26.7	27.0
Number of services . . . . .	58,810	60,718	62,877
Number of meters and motors . . . . .	3,882	4,078	4,357
Length of supply and distributing mains, in miles . . . . .	479.72	498.73	519
Number of fire-hydrants in use . . . . .	5,225	5,398	5,643
Yearly revenue from water-rates . . .	\$1,357,738 30	\$1,382,422 53	* \$1,838,494 30
Yearly revenue from metered water . .	\$483,239 58	\$554,047 36	† \$606,451 00
Percentage of total revenue from metered water . . . . .	36.3	40.1	33
Cost of works on Jan. 1, 1889, and 1890, Feb. 1, 1892 . . . . .	\$20,432,974 43	\$20,995,015 00	* \$21,643,526 91
Yearly expense of maintenance . . . .	\$345,986 88	\$381,147 10	* \$398,755 92
MYSTIC WORKS.			
Daily average consumption in gallons . .	7,830,500	8,341,400	9,055,300
Daily average consumption in gallons per inhabitant . . . . .	68.7	70.6	74.7
Daily average amount used through meters, gallons . . . . .	1,341,700	1,537,400	1,945,500
Percentage of total consumption metered,	17.1	18.5	20.4
Number of services . . . . .	18,527	19,520	20,566
Number of meters and motors . . . . .	413	414	427
Length of supply and distributing mains, in miles . . . . .	147.7	152.3	168
Number of fire-hydrants in use . . . . .	998	1,073	1,116
Yearly revenue from water-rates . . .	\$317,197 29	\$332,634 02	* \$406,784 26
Yearly revenue from metered water . .	\$80,313 19	\$89,526 42	† \$102,719 26
Percentage of total revenue from metered water . . . . .	24.1	26.9	25.2
Cost of works on Jan. 1, 1889, and 1890, and Feb. 1, 1892 . . . . .	\$1,696,280 76	\$1,708,781 59	\$1,710,943 70
Yearly expense of maintenance . . . .	\$125,660 21	\$144,184 44	* \$174,431 92

\* Thirteen months.

† Twelve months.

Respectfully submitted,

ROBERT GRANT,  
JOHN W. LEIGHTON,  
THOMAS F. DOHERTY,

*Boston Water Board.*

REPORT OF THE SUPERINTENDENT OF THE  
EASTERN DIVISION.

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OFFICE OF SUPERINTENDENT OF EASTERN DIVISION,  
710 ALBANY STREET, BOSTON, Feb. 1, 1892.

ROBERT GRANT, Esq., *Chairman Boston Water Board.*

DEAR SIR: I herewith respectfully submit the annual report of the Eastern Division for the year ending Jan. 31, 1892.

*Distribution.* — Twenty-one miles of pipe mains have been laid during the year, and 5,258 feet of pipe have been abandoned, making a net increase in the distribution system of twenty miles and a total length of 518.79 miles now connected with the works.

Two thousand and eighteen feet of 24-inch pipe main have been laid through the Arnold Arboretum for the improvement of the West Roxbury high-service supply.

For the improvement of the South Boston and Dorchester supply, 3,998 feet of 30-inch pipe main have been laid through Chester square, Chester park, East Chester park, and Swett street. Owing to the large increase in the number of petitions for small extensions of pipe mains, work had to be temporarily suspended on this pipe, but it will be resumed as speedily as possible.

The Bellevue high-service pipes have been extended 1,379 feet through Church and Centre streets and connected to Montclair avenue. A 12-inch check-valve also was put in at the corner of Pond and May streets, and the water turned on to the pipes in Pond street, between May street and Brookline line, April 28, 1891.

Three hundred and seven petitions for extension of mains have been received, and 277, including 11 of 1890, have been granted.

*Hydrants.* — Three hundred and twenty-seven hydrants have been established and eighty abandoned, making a net increase of 247 and a total of 5,705 hydrants now connected with the system.

Thirty-four of the old pattern Boston hydrants have been replaced by hydrants of the Post or Lowry patterns. During the year 160 Post hydrants in service have been supplied with  $4\frac{1}{2}$ -inch steamer connections as requested by the Fire Department.

The work of improving the Post hydrant, so as to have an

independent shut-off or valve for each steamer connection, is being pushed as speedily as possible.

*Service Pipes.* — Two thousand three hundred and seventy-four service pipes have been laid, with an aggregate length of 69,859 feet, and 215 services have been abandoned, making a net increase of 2,159 pipes for the year.

### HIGH-SERVICE WORKS.

*Chestnut-Hill Station.* — The following repairs have been made on Engine No. 1: One full set of Babbitt packing-rings for piston-rods and valve-stems (12 set); 4 wrought-iron cross-heads with steel pins, to replace the cast-iron ones, which were badly worn; brasses on both ends of air-pump rods; 1 set of air-pump valves; and 2 gibbs for left side of fork-rod.

Engine No. 2. One full set of Babbitt packing-rings for piston-rods and valve-stems (12 set); 4 wrought-iron cross-heads with steel pins, to replace the cast-iron ones, which were badly worn; brasses on both ends of air-pump rods; 1 strap to replace the one broken on left-hand fork-rod; 4 gibbs to replace the broken ones; and one set of air-pump valves.

The usual amount of work has been done on both engines, such as cleaning brasses, overhauling pump-valves, and other minor repairs.

*Boilers.* — The furnaces of all the boilers have been re-lined.

*Feed-pumps.* — Both pumps have been repaired, and are in good condition.

*Dynamo.* — The insulation ring of the commutator burned out was repaired, and is now running.

All the repairs, with the exception of beam of No. 2 Engine, and the dynamo, were done by the regular employees at this station.

*East Boston Station.* — The roof of the building has been repaired and some pointing done outside. To make a bedroom, a partition was put up inside, which was stained and vanished, together with the window-frames and sashes. The pumps and boilers are in good condition.

*West Roxbury Station.* — Owing to numerous complaints from the water-takers on this service of a continual noise while the pump is at work, an air-chamber has been put in at the pump, which has greatly relieved the trouble. The pump and boilers have had their regular attention.

*Elmwood-street Station.* — This building was vacated by the department some time since. As the work formerly

done there is now done at the Chestnut-hill Pumping-station, and as this building can be put to no practical use by this department, authority has been asked from the City Government to sell the premises.

The stand-pipes at Mt. Bellevue, West Roxbury, and Orient Heights, East Boston, are in good condition.

*Pipe Yard and Buildings.*—The machine-shop, which was built last year, is in good condition.

The stable, which is also new, is in good condition, and is now heated by steam supplied from the machine-shop, which does away with the danger from an overheated stove. I would recommend that the old shed on the north side of the yard be torn down, and a 2-story brick building be erected in its stead, to be used for the storage of wagons, sleighs, cement, and other material.

#### DISTRICT STABLES.

*East Boston.*—The old pumping-station has been remodelled and is now used as a stable and workshop for this district. The work was done by the department.

*Dorchester.*—A new 1½-story wooden stable is being erected on Gibson street for this district, and when completed will have stalls for 4 horses, a large wagon-room, and also 3 small rooms to be used as a headquarters for the men.

*West Roxbury.*—The building owned by A. H. Tompkins, now occupied as a stable and headquarters, is altogether inadequate for the needs of this district. I recommend that a site be selected in the vicinity of South and Centre streets, and a building, to be used as a stable and workshop, be erected as soon as possible.

*Brighton.*—The stable is in good condition.

#### RESERVOIRS.

*Parker Hill.*—The keeper's house has been repaired inside, and the gate-house and grounds are in good condition. This reservoir, which has never been cleaned since it was first filled in 1875, is to be cleaned during the coming season.

*East Boston.*—A fence 844 feet in length has been rebuilt on the north and east sides. The reservoir and the grounds around it are in good condition.

*South Boston.*—The reservoir is in good condition, but the fence around it is out of repair and is to be rebuilt.

## WASTE DETECTION.

The work of this department has been continued throughout the year.

The force consists of eleven inspectors, ten of whom have been employed the whole year and one since Oct. 19, 1891.

The premises of all water-takers have been examined, and more than 8,000 notices to repair defective fixtures have been issued.

The following table shows the work of the inspectors during the year :

Premises examined . . . . .	63,700
“ notified to repair defective fixtures . . . . .	8,735
“ reexamined . . . . .	8,661
Second notices to repair issued . . . . .	325
“ reexaminations made . . . . .	753
Wilful waste notices issued . . . . .	104
Fines collected . . . . .	2
Defective services in street . . . . .	120
Hopper water-closets not self-closing, reported . . . . .	78

The defective fixtures may be divided into the following classes :

Ball-cocks . . . . .	3,848
Water-closets . . . . .	2,476
Faucets ; sink, bowl, and bath-tub . . . . .	3,078
Stopcocks . . . . .	10
Services burst inside building . . . . .	439
“ “ outside “ for owner to repair . . . . .	94
“ “ “ “ city “ “ . . . . .	106
Wilful waste . . . . .	104

## THE DEACON METER SYSTEM.

*Cochituate Division.* — There are now in use 81 Deacon meters, 74 on the Cochituate system and 7 on the Mystic system. The territory supplied by the meters is divided into 176 sections. The entire residential portion of Boston can now be tested by the meters with the exception of a portion of West Roxbury and that portion of the Back Bay district bounded by Boylston street, Parker street, and the Boston & Providence Railroad.

*Mystic Division.* — Charlestown is practically covered by meters, one meter supplies a small portion of Somerville, and one about one-quarter of Chelsea. Everett has no meter.

The following statement is condensed from the returns of

the different sections, and shows the daily average consumption and also the rate consumption during the hours of 1 to 4 A.M. at the close of the season of 1890 and the beginning and end of the season of 1891 :

	Population.	1890.		1891.			
		2D READING.		1ST READING.		2D READING.	
		Daily consumption.	Night rate.	Daily consumption.	Night rate.	Daily consumption.	Night rate.
		Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.
Cochituate . . . .	300,200	47.5	27.6	52.1	31.8	53.7	33.2
Mystic . . . . .	46,200	35.3	20.0	45.1	27.3	45.2	29.6

### METERS.

*Cochituate Division.* — Three hundred and thirty-four meters have been applied, and 122 have been discontinued, making a net increase of 212, and the total number in service, 3,839.

*Mystic Division.* — Thirty-nine meters have been applied, 24 have been discontinued, making a net increase of 15 meters, and the total number now in service, 406.

### WATER-POSTS.

Eighty-six water-posts have been erected and 5 abandoned, making the number now in use 251.

### FOUNTAINS.

Five drinking-fountains have been erected during the past year. The rapid growth of the city and the corresponding increase of travel make it imperative from humane considerations that many special locations be supplied with drinking-fountains. Many of the drinking-fountains now in use are of antique pattern and inconvenient, and should be replaced by those of recent improvement and invention, which may be used by both man and beast.

In the city proper, a drinking-fountain has been erected at the junction of Malden and Wareham streets; the stone foundation of the drinking-fountain at the corner of Boylston and Charles streets has been reset, and the one in Custom-House square was raised.

The old fountain on Broadway, at Independence square, South Boston, has been abandoned, and an ornamental iron drinking-fountain has been erected in its place.

On account of the improvements made in Central and Maverick squares, East Boston, two old stone watering-troughs have been abandoned, and ornamental iron drinking-fountains for beasts only, and furnished with electric-light posts, have been erected in their stead. The drinking-fountain in Belmont square has been abandoned.

On Adams street, corner Minot, Dorchester, a drinking-fountain of modern style for man and beast has taken the place of the old one. The drinking-fountain at the junction of Adams and Neponset avenue has been removed by order of the Board of Aldermen.

The following is a list of fountains now in use :

NOTE. — (†) Indicates a continuous flow of water in warm weather. (\*) Automatic fixtures for man and beast in warm weather, and a continuous flow of water for beasts in cold weather. (‡) Continuous flow of water summer and winter. (§) Automatic fixtures for man. (||) Automatic fixtures for man and beast in warm weather only.

*City Proper.*

No.			
49	Mt. Washington avenue, at drawbridge	.	•
22	Mulden street, junction Wareham street	.	•
63	North square	.	§
46	Post-Office square	.	•
33	Tremont street, at Clarendon	.	•
47	Winthrop square	.	•
32	Washington street, at Blackstone square	.	•
39	West Chester park, near Westland avenue	.	•
48	Atlantic avenue, at India wharf	.	•
43	Atlantic avenue, at Rowe's wharf	.	•
42	Atlantic avenue, junction Commercial street	.	•
31	Albany street, opposite Concord	.	•
56	Boston Common	.	§
57	Boston Common	.	§
58	Boston Common	.	§
59	Boston Common	.	§
60	Boston Common	.	§
61	Boston Common	.	§
36	Beacon street, corner Charles	.	•
72	Beacon street, junction Commonwealth avenue	.	†
37	Charles street, opposite the jail	.	•
34	Columbus avenue, opposite Church	.	•
63	Causeway street, at B. & L. R.R. depot	.	§
40	Causeway street, junction Merrimac	.	•
35	Charles street, corner Boylston	.	•
45	Custom-House square	.	†
44	Fort-hill square	.	•
41	Haymarket square	.	•
38	Leverett street, at Cambridge bridge	.	•

*East Boston.*

No.							
51	Central square	.	.	.	.	.	†
52	Bennington street, junction Chelsea	.	.	.	.	.	†
50	Maverick square	.	.	.	.	.	†
64	Neptune road, at Wood Island park	.	.	.	.	.	§
53	Saratoga street, junction Pope	.	.	.	.	.	*

*South Boston.*

28	A street, near First	.	.	.	.	.	*
25	Dorchester avenue, junction Boston	.	.	.	.	.	*
29	Foundry street, opposite First	.	.	.	.	.	
30	Fourth street, corner Foundry	.	.	.	.	.	*
27	Fourth street, corner Dorchester	.	.	.	.	.	*
26	Fourth street, junction Emerson	.	.	.	.	.	*
68	Independence square	.	.	.	.	.	*
69	Q street, near Fifth	.	.	.	.	.	*
70	Sixth street, near P	.	.	.	.	.	§
71	Telegraph hill	.	.	.	.	.	§

*Roxbury.*

16	Albany street, junction Dearborn	.	.	.	.	.	*
13	Eliot square	.	.	.	.	.	†
15	Eustis street, corner Washington	.	.	.	.	.	*
6	Heath street, at Tremont	.	.	.	.	.	*
12	Pynchon street, near Roxbury	.	.	.	.	.	
14	Tremont street, junction Cabot	.	.	.	.	.	*
66	Westminster street, opposite Williams	.	.	.	.	.	*

*Dorchester.*

54	Adams street, opposite Minot	.	.	.	.	.	*
18	Blue Hill avenue, junction Washington	.	.	.	.	.	*
17	Blue Hill avenue, opposite Franklin park	.	.	.	.	.	
67	Commercial street, opposite Beach	.	.	.	.	.	*
16	Dorchester avenue, junction Adams	.	.	.	.	.	*
23	Glover's Corner	.	.	.	.	.	*
20	Neponset avenue, opposite Walnut street	.	.	.	.	.	*
56	River street, junction Blue Hill avenue	.	.	.	.	.	†
24	Upham's Corner	.	.	.	.	.	*

*West Roxbury.*

5	Centre street, junction Day and Perkins streets	.	.	.	.	.	*
55	" " " South street	.	.	.	.	.	*
1	" " opposite Spring street	.	.	.	.	.	*
3	South street, junction Morton street	.	.	.	.	.	
2	Washington street, junction South street	.	.	.	.	.	*
4	" " near Burnett	.	.	.	.	.	*



*Brighton.*

No.								
11	Barry's Corner	.	.	.	.	.	.	*
65	Beacon street, opp. Chestnut-hill Reservoir	.	.	.	.	.	.	\$
8	Market street, Cattle Fair Hotel	.	.	.	.	.	.	*
10	Union square	.	.	.	.	.	.	*
9	Western avenue, Charles-river Hotel	.	.	.	.	.	.	*
7	Washington street, at Oak square	.	.	.	.	.	.	*

## METERS APPLIED.

COCHITUATE.	4"	3"	2"	1½"	1"	¾"	½"	Total.
Worthington	1	1	9	17	44	25	3	100
B. W. W.	.	.	.	.	.	18	.	18
Crown	4	3	6	8	18	23	57	119
Hersey	.	1	2	2	11	13	6	35
Metropolitan	.	.	.	.	.	59	1	60
Thomson	.	.	.	.	.	1	1	2
	5	5	17	27	73	139	68	334

## METERS DISCONTINUED.

COCHITUATE.	4"	2"	1½"	1"	¾"	½"	Total.
Worthington	.	2	3	11	11	18	45
Crown	1	.	1	2	3	56	63
Hersey	.	.	1	.	1	.	2
B. W. W.	.	.	.	.	12	.	12
	1	2	5	13	27	74	122

## METERS SENT TO FACTORY FOR REPAIRS.

COCHITUATE.	3"	2"	1½"	1"	¾"	½"	Total.
Worthington	.	8	3	14	1	.	26
Crown	3	2	2	9	16	56	83
Hersey	.	.	.	3	7	2	12
Thomson	.	.	.	.	.	1	1
	3	10	5	26	24	59	127

## METERS PURCHASED.

	4"	3"	2"	1½"	1"	¾"	½"	Total.
Worthington . . . . .	3	3	12	19	21	12	...	70
Crown . . . . .	2	4	8	7	10	32	...	63
Hersey . . . . .	...	1	3	12	20	17	14	67
Metropolitan . . . . .	...	...	...	...	...	96	4	100
Champion . . . . .	...	...	...	...	...	1	...	14
Thomson . . . . .	...	...	...	...	...	4	6	10
	5	8	23	38	51	162	24	311

## METERS IN SERVICE JANUARY 31, 1892.

COCHITUATE.	6"	4"	3"	2"	1½"	1"	¾"	½"	Total.
Worthington . . . . .	...	10	24	111	99	561	409	108	1,322
B. W. W. . . . .	...	...	...	...	...	...	482	...	482
Crown . . . . .	1	16	29	32	58	204	185	1,206	1,731
Hersey . . . . .	...	1	4	13	23	37	73	19	170
Ball & Flitts . . . . .	...	...	...	...	...	2	3	6	10
Metropolitan . . . . .	...	...	...	...	...	...	93	4	97
Thomson . . . . .	...	...	...	1	1	1	3	6	12
Frost . . . . .	...	...	...	...	1	...	1	...	2
American Frost . . . . .	...	...	...	...	...	...	2	...	2
Desper . . . . .	...	...	...	...	...	...	2	3	5
Star . . . . .	...	...	...	...	...	...	4	...	4
Champion . . . . .	...	...	...	...	...	...	1	...	1
Nash . . . . .	...	...	...	...	...	...	...	1	1
	1	27	57	157	182	805	1,258	1,352	3,339

## METERS IN SERVICE FEB. 1, 1892.

Mystic Department.	6"	4"	3"	2"	1½"	1"	¾"	½"	Total.
Worthington . . . . .		8	3	33	6	76	56	10	192
Crown . . . . .	2	5	9	9	2	33	48	80	197
B. W. W. . . . .							2		2
Hersey . . . . .		1		2	2	6			11
Ball and Fitts . . . . .			2	1			1		4
	2	14	14	45	10	115	107	90	406

## METERS APPLIED.

Mystic Department.	3"	2	1½"	1"	¾"	½"	Total.
Worthington . . . . .	1	2	1	7	1		12
Crown . . . . .	1			4	8	7	20
Hersey . . . . .	1		2	3			6
Ball and Fitts . . . . .	1						1
	4	2	3	14	9	7	39

## METERS DISCONTINUED.

Mystic Department.	4"	3"	2"	1½"	1"	¾"	½"	Total.
Worthington . . . . .			2		2	4	2	10
Crown . . . . .	1		2		1	4	2	10
Hersey . . . . .		1		1	2			4
	1	1	4	1	5	8	4	24

## METERS SENT TO FACTORY FOR REPAIRS.

Mystic Department.	4"	2"	1"	¾"	½"	Total.
Worthington . . . . .				3	2	5
Crown . . . . .		1	1	4	7	22
		1	1	4	9	27

## METERS REPAIRED IN SERVICE.

	Cochituate.	Mystic.
Clock broken . . . . .	82	29
“ defaced . . . . .	25	12
Leak at spindle . . . . .	78	9
“ “ coupling . . . . .	49	1
“ “ nipple . . . . .	6	
“ “ body . . . . .	2	
Stopped by fish . . . . .		10
Coupling broken . . . . .		1
Gear stuck . . . . .	3	
Spindle stuck . . . . .	2	
Nipple broken . . . . .		1
	<u>247</u>	<u>63</u>

## CAUSES FOR CHANGING METERS.

	Cochituate.	Mystic.
Ordered out for examination . . . . .	207	62
“ “ “ test . . . . .	90	11
Injured by frost . . . . .	15	
“ “ hot water . . . . .	18	2
“ “ fire . . . . .	2	
No force . . . . .	57	4
Leak at spindle . . . . .	13	1
Enlargement of service . . . . .	40	5
Filled with rust . . . . .	30	3
Clock broken . . . . .	37	4
Gravel in meter . . . . .	2	1
Lever broken . . . . .	7	1
Stopped in service . . . . .	14	7
Leak at packing . . . . .	9	
Spindle broken . . . . .	6	1
Gear worn . . . . .	5	
“ broken . . . . .	12	3
Clock defuced . . . . .	7	
Lever detached . . . . .	1	
Solder in meter . . . . .	5	
Changed location . . . . .	2	
Gear out of order . . . . .	5	
Piston worn . . . . .	3	1
“ broken . . . . .	2	
Ratchet “ . . . . .		1
Body “ . . . . .	2	
Disc “ . . . . .	2	
Leak at coupling . . . . .	2	

## GENERAL STATEMENT FOR THE YEAR 1891.

	COCHITUATE.		MYSTIC.	
	Meters.	Boxes.	Meters.	Boxes.
In service Jan. 31, 1892 . . . . .	3,839	. . . . .	406	
New set . . . . .	334	67	29	6
Discontinued . . . . .	122	. . . . .	24	
Changed . . . . .	665	. . . . .	107	
Changed location . . . . .	19	. . . . .	6	
Tested at shop . . . . .	1,715	. . . . .	149	
Repaired at shop . . . . .	401	. . . . .	46	
Repaired at factory . . . . .	127	. . . . .	27	
Repaired in service . . . . .	247	67	63	41
Purchased . . . . .	311			

# Statement of Location, Size, and Number of Feet of Pipe laid in 1891.

NOTE.—B. indicates Boston; S.B., South Boston; E.B., East Boston; Rox., Roxbury; Der., Dorchester; W. Rox., West Roxbury; Bri., Brighton.

In what Street.	Between what Streets.	District.	Size.	Length.
Chester sq. . . . .	Washington and Shawmut ave. . . . .	B.	30	47
“ park . . . . .	“ “ Harrison ave. . . . .	“	“	768
East Chester park . . . . .	Harrison ave. and Sweet . . . . .	B. and Rox.	“	1,284
Sweet . . . . .	E. Chester park and N. Y. & N. E. R.R.,	Rox.	“	1,899
	Total 30-inch . . . . .			<u>3,998</u>
Arnold Arberstam . . . . .	Walter and South . . . . .	W. Rox.	24	2,018
	Total 24-inch . . . . .			<u>2,818</u>
Congress . . . . .	A and B . . . . .	S.B.	16	737
Terrace . . . . .	Alleghany and New Heath . . . . .	Rox.	“	120
Huntington ave. . . . .	Parker and Longwood ave. . . . .	“	“	473
Talbot ave. . . . .	Harvard and Bernard . . . . .	Der.	“	506
	Total 16-inch . . . . .			<u>1,836</u>
Aldine . . . . .	Atlantic ave. and Estes . . . . .	B.	12	323
Audubon read . . . . .	Westland and Brookline ave. . . . .	“	“	1,073
Gainsborough . . . . .	Falmouth and Parker . . . . .	“	“	300
Berkeley . . . . .	Chandler and Columbus ave. . . . .	“	“	154
B . . . . .	Second and Congress . . . . .	S.B.	“	2,468
E . . . . .	“ “ Athens . . . . .	“	“	442
Byron . . . . .	Bennington and Homer . . . . .	E.B.	“	223
Bennington . . . . .	Saratoga and Ashley . . . . .	“	“	125
Holburn . . . . .	Warren and Blue Hill ave. . . . .	Rox.	“	258
Magazine . . . . .	Norfolk ave. and Kemble . . . . .	“	“	227
Kemble . . . . .	Magazine and Hampden . . . . .	“	“	1,276
Gerard . . . . .	Norfolk ave. and Sweet . . . . .	“	“	1,758
Humboldt ave. . . . .	Walnut ave. and Wauwabeck . . . . .	“	“	2,391
E. Chester park . . . . .	At Albany . . . . .	B.	“	25
Washington . . . . .	At Chester park . . . . .	“	“	6
Lawn . . . . .	Hayden and Heath . . . . .	Rox.	“	404
Hayden . . . . .	Fisher ave. and Lawn . . . . .	“	“	283
Parker Hill ave. . . . .	Parker and Hilsde . . . . .	“	“	404
	Carried forward . . . . .			<u>12,228</u>

Statement of Location, Size, etc. — *Continued.*

In what Street.	Between what Streets.	District.	Size.	Length.
	<i>Brought forward</i> . . . . .			12,223
Shirley . . . . .	Norfolk ave. and George . . . . .	Rox.	12	450
Hutchins ave. . . . .	From Day . . . . .	"	"	133
Westville . . . . .	Geneva ave. and Ditson . . . . .	Dor.	"	282
Codman . . . . .	Dorchester ave. and Washington . . . . .	"	"	218
Magnolia . . . . .	Quincy and Lawrence ave. . . . .	"	"	165
Stockton . . . . .	Milton ave. and Washington . . . . .	"	"	118
Morton . . . . .	N. Y. & N. E. R.R. and Fairmount . . . . .	"	"	991
Seldon . . . . .	Morton and Nelson . . . . .	"	"	35
Homes ave. . . . .	Topliffe and Draper . . . . .	"	"	56
Butler . . . . .	Bearse and Vose . . . . .	"	"	241
West Seldon . . . . .	From Morton . . . . .	"	"	551
Centre . . . . .	Washington and Carlisle . . . . .	"	"	324
Bernard . . . . .	Talbot ave. and N. Y. & N. E. R.R. . . . .	"	"	50
Harvard . . . . .	Blue Hill ave. and Abbott . . . . .	"	"	206
Edson . . . . .	Norfolk and Milton ave. . . . .	"	"	64
May . . . . .	Pond and Centre . . . . .	W. Rox.	"	64
Dudley ave. . . . .	Bellevue ave. and Metcalf . . . . .	"	"	114
Bellevue ave. . . . .	Centre and Cornell . . . . .	"	"	1,074
Florence . . . . .	Marion and Harrison . . . . .	"	"	196
Baker . . . . .	Gardner and Mt. Vernon . . . . .	"	"	1,833
La Grange . . . . .	Jordan and Vale . . . . .	"	"	419
Centre . . . . .	Grove and Dedham line . . . . .	"	"	2,719
Centre . . . . .	Hewlitt and Arundel . . . . .	"	"	275
Hewlitt . . . . .	Centre and Walter . . . . .	"	"	17
Montclair ave. . . . .	Centre and Merlin . . . . .	"	"	491
New Call . . . . .	Keyes and Boynton . . . . .	"	"	175
Western ave. . . . .	No. Harvard and Cambridge line . . . . .	Bri.	"	3,079
Cambridge . . . . .	Chamberlin " " " . . . . .	"	"	1,241
Sutherland road . . . . .	Selkirk and Lanark roads . . . . .	"	"	51
Lake . . . . .	Kendricken and South . . . . .	"	"	413
Faneuil . . . . .	Market and Parson . . . . .	"	"	190
Warren . . . . .	Cambridge and Allston . . . . .	"	"	953
Homes ave. . . . .	From No. Harvard . . . . .	"	"	1,067
Bigelow . . . . .	Webster and Dunboy . . . . .	"	"	523
	Total 12-inch . . . . .			31,367

Statement of Location, Size, etc. — *Continued.*

In what Street.	Between what Streets.	District.	Size.	Length.
Randolph . . . . .	Albany and Harrison ave. . . . .	B.	10	455
Plympton . . . . .	“ “ “ . . . . .	“	“	405
Wareham . . . . .	“ “ “ . . . . .	“	“	372
Harvest . . . . .	Boston and Dorchester ave. . . . .	Dor.	“	531
Medway . . . . .	Branch and Bearse . . . . .	“	“	290
Carruth . . . . .	Codman and Van Winkle . . . . .	“	“	539
Tolman . . . . .	Norwood and Neponset ave. . . . .	“	“	136
Centre . . . . .	South and Church . . . . .	W. Rox.	“	140
Church . . . . .	Centre and Weld . . . . .	“	“	1,239
Brook . . . . .	Hill and Bellevue ave. . . . .	“	“	689
Royal road . . . . .	Cambridge and Coolidge road . . . . .	Bri.	“	923
Murdock . . . . .	Hill and Spring . . . . .	“	“	652
	Total 10-inch . . . . .			<u>6,371</u>
Boylston . . . . .	West Chester Park and B. & A. R.R. . . . .	B.	8	366
Malden . . . . .	Wareham and Albany . . . . .	“	“	786
Hathaway . . . . .	Congress and Summer . . . . .	“	“	485
Reed . . . . .	Thorndike and Walnut place . . . . .	“	“	613
Thorndike . . . . .	Reed and Washington . . . . .	“	“	177
State . . . . .	At Merchants row . . . . .	“	“	6
Merchants row . . . . .	State and Chatham . . . . .	“	“	50
Alger . . . . .	Dorchester ave. and Dorchester . . . . .	S.B.	“	1,056
Washington . . . . .	At Essex . . . . .	B.	“	12
Washburn . . . . .	Dorchester ave. and Boston . . . . .	S.B.	“	557
East Ninth . . . . .	Old Harbor and G . . . . .	“	“	159
Preble . . . . .	Wendall and Vinton . . . . .	“	“	169
Vinton . . . . .	Preble and Dorchester . . . . .	“	“	666
Gladstone . . . . .	From Breed . . . . .	E.R.	“	189
Fulda . . . . .	Highland and Valentine . . . . .	Rox.	“	332
Calumet . . . . .	Hillside and Pequot . . . . .	“	“	924
Harrishoff . . . . .	Humboldt ave. and Harold . . . . .	“	“	52
Holland . . . . .	“ “ “ “ . . . . .	“	“	48
Gay Head . . . . .	Minden and Centre . . . . .	“	“	236
Kingsbury . . . . .	Washington and Granger . . . . .	“	“	234
Heath . . . . .	Lawn and Tremont . . . . .	“	“	113
Dimock . . . . .	Amory and Washington . . . . .	“	“	249
	Carried forward . . . . .			<u>7,479</u>



Statement of Location, Size, etc. — *Continued.*

In what Street.	Between what Streets.	District.	Size.	Length.
	<i>Brought forward</i> . . . . .			7,479
Round Hill . . . . .	Day and Gay Head . . . . .	Rox.	8	318
King . . . . .	Queen and Adams . . . . .	Der.	"	829
Train . . . . .	King and Boutwell ave. . . . .	"	"	215
Welles ave. . . . .	Ocean and Argyle . . . . .	"	"	89
Bearse . . . . .	From Crest ave. . . . .	"	"	877
Rosemont . . . . .	" Adams . . . . .	"	"	403
Rosemont terrace . . . . .	" Rosemont . . . . .	"	"	180
Julian ave. . . . .	Judson and Howard ave. . . . .	"	"	498
McBourne . . . . .	Centre and Welles ave. . . . .	"	"	182
Kilton . . . . .	Park and Harvard . . . . .	"	"	174
Street off Carruth . . . . .	Carruth and O. C. R.R. . . . .	"	"	33
Pierce ave. . . . .	Adams and Newhall . . . . .	"	"	617
Norfolk . . . . .	Walkhill and N. Y. and N. E. R.R. . . . .	"	"	238
Street . . . . .	From Norfolk . . . . .	"	"	133
Algonquin . . . . .	Washington and Harvard . . . . .	"	"	904
Elizabeth . . . . .	Norfolk and Astoria . . . . .	"	"	329
Astoria . . . . .	Elizabeth and Flint . . . . .	"	"	105
Fuller . . . . .	Morton and Capen . . . . .	"	"	304
Street off King . . . . .	King and Rosemont . . . . .	"	"	254
Bowdoin ave. . . . .	Hawes ave. and Morse . . . . .	"	"	294
Brookford . . . . .	Dromey and Howard aves. . . . .	"	"	170
Duncan . . . . .	Granger and Leonard . . . . .	"	"	126
Seaborn . . . . .	Centre and Kenwood . . . . .	"	"	322
Fenton . . . . .	Duncan and Fenton pl. . . . .	"	"	172
Northern ave. . . . .	Whitfield and Washington . . . . .	"	"	256
Templeton . . . . .	From Adams . . . . .	"	"	198
Landseer . . . . .	Bellevue and La Grange . . . . .	W. Rox.	"	299
Walter . . . . .	Symmes and Weld . . . . .	"	"	907
Harrison . . . . .	Florence and O. C. R.R. . . . .	"	"	532
Baker pl. . . . .	From Baker . . . . .	"	"	33
Cornell . . . . .	Orange and Hill . . . . .	"	"	496
Mendum . . . . .	Walter and Fairview . . . . .	"	"	259
Fairview . . . . .	Procter and Mendum . . . . .	"	"	344
Kittredge . . . . .	Norfolk and Metropolitan ave. . . . .	"	"	48
	<i>Carried forward</i> . . . . .			28,515

## Statement of Location, Size, etc. — Continued.

In what Street.	Between what Streets.	District.	Size.	Length.
	<i>Brought forward</i> . . . . .			18,515
Temple . . . . .	Ivory and O. C. R.R. . . . .	W. Rox.	8	98
Charles . . . . .	Kittredge and Poplar . . . . .	"	"	207
Kittredge . . . . .	James and Charles . . . . .	"	"	311
Brookside ave. . . . .	Green and Germania . . . . .	"	"	811
Bellevue . . . . .	Cornell and Hemlock . . . . .	"	"	312
Weldon . . . . .	From Wenham . . . . .	"	"	272
Arlington . . . . .	Market and Arlington pl. . . . .	Bel.	"	357
Lanark road . . . . .	Kilsyth and Sunderland roads . . . . .	"	"	899
Coolidge road . . . . .	Manefield and No. Harvard . . . . .	"	"	976
Aldie . . . . .	Franklin and Athol . . . . .	"	"	131
Summit ave. . . . .	Allston and Sumner . . . . .	"	"	110
Bradbury . . . . .	Franklin and Manefield . . . . .	"	"	206
Murdock . . . . .	Whitney and Hill . . . . .	"	"	248
Mt. Vernon . . . . .	Foster and Rockland . . . . .	"	"	340
Windom . . . . .	Home ave. and Cambridge . . . . .	"	"	760
Dustin . . . . .	Cambridge and No. Harvard . . . . .	"	"	490
Holland road . . . . .	No. Harvard and Royal Road . . . . .	"	"	942
	Total 8-inch . . . . .			21,965
Chandler . . . . .	Berkeley and Tremont . . . . .	B.	8	156
Cobb . . . . .	Washington and Shawmut ave. . . . .	"	"	269
Haviland . . . . .	W. Chester park and Parker st. . . . .	"	"	323
Harcourt . . . . .	St. Botolph and O. C. R.R. . . . .	"	"	271
E. Lenox . . . . .	Reed and Washington . . . . .	"	"	7
Newcomb . . . . .	" " " . . . . .	"	"	22
Pinckney . . . . .	Louisburg sq. and Cedar . . . . .	"	"	7
Walnut pl. . . . .	Reed and Washington . . . . .	"	"	95
McLellan . . . . .	From Reed . . . . .	"	"	182
Albemarle . . . . .	St. Botolph and O. C. R.R. . . . .	"	"	253
East Ninth . . . . .	K and N . . . . .	S.B.	"	1,101
Cottage . . . . .	E. Ninth and O. C. R.R. . . . .	"	"	164
Tudor . . . . .	D and E . . . . .	"	"	163
Monks . . . . .	E. Sixth and E. Seventh . . . . .	"	"	297
Bokon . . . . .	At E . . . . .	"	"	55
Old Harbor . . . . .	Eighth and Ninth . . . . .	"	"	76
	<i>Carried forward</i> . . . . .			3,411

## Statement of Location, Size, etc.—Continued.

In what Street.	Between what Streets.	District.	Size.	Length.
	<i>Brought forward</i> . . . . .			3,411
Hall pl. . . . .	From E. Fifth . . . . .	S.B.	6	146
Sleeper . . . . .	Congress and N. Y. & N. E. R.R.	"	"	60
Oowper . . . . .	Wordsworth and the water . . . . .	E.B.	"	147
Pope . . . . .	Byron and Moore . . . . .	"	"	72
Collins . . . . .	From Bayswater . . . . .	"	"	79
Terrace pl. . . . .	Webster and Webster . . . . .	"	"	131
Falcon . . . . .	Brooks and Putnam . . . . .	"	"	60
Homer . . . . .	Moore and Byron . . . . .	"	"	102
Terrace . . . . .	Alleghany and N. Heath . . . . .	Rox.	"	30
Schiller . . . . .	Heath and Mansur . . . . .	"	"	102
Perch . . . . .	From Pike . . . . .	"	"	142
Pike . . . . .	Albany and Perch . . . . .	"	"	121
Putnam pl. . . . .	From Roxbury . . . . .	"	"	131
Forbes . . . . .	Centre and Chestnut ave. . . . .	"	"	366
Ingleside . . . . .	Dacia and Blue Hill ave. . . . .	"	"	248
Hollworthy . . . . .	Walnut and Humboldt aves. . . . .	"	"	45
Hamerton . . . . .	Humboldt ave. and Harold . . . . .	"	"	48
Grainger . . . . .	Elmore and Kingsbury . . . . .	"	"	228
Dalmatia . . . . .	Blue Hill and Howard aves. . . . .	"	"	131
Bickford . . . . .	Centre and Bromley park . . . . .	"	"	333
Duncan . . . . .	From Ruggles . . . . .	"	"	200
Sunnyside terrace . . . . .	Centre and Creighton . . . . .	"	"	322
Hawthorne ave. . . . .	From Washington . . . . .	"	"	234
Binney . . . . .	Longwood ave. and Smyrna . . . . .	"	"	127
Smyrna . . . . .	Binney and Brookline ave. . . . .	"	"	55
Smith . . . . .	Whitney and Worthington . . . . .	"	"	104
Dromey ave. . . . .	From Brookford . . . . .	"	"	63
Dakota . . . . .	Holborn and Gaston . . . . .	"	"	493
Oregon . . . . .	Conant and Smith . . . . .	"	"	123
Cobden . . . . .	Walnut ave. and Washington . . . . .	"	"	254
Grotto glen . . . . .	From Day . . . . .	"	"	30
Street . . . . .	" Amory . . . . .	"	"	414
Conant pl. . . . .	" Conant . . . . .	"	"	137
Howland . . . . .	" Humboldt ave. . . . .	"	"	238
	<i>Carried forward</i> . . . . .			8,962

## Statement of Location, Size, etc. — Continued.

In what Street.	Between what Streets.	District.	Size.	Length.
	<i>Brought forward</i> . . . . .			8,982
Marshfield . . . . .	Norfolk ave. and Batchelder . . . . .	Rox.	6	237
Moreland terrace . . .	Blue Hill ave. and Dennis . . . . .	"	"	42
Johnson ave. . . . .	Buckley ave. and Centre . . . . .	"	"	148
Buckley ave. . . . .	From Johnson ave. . . . .	"	"	83
Wyoming . . . . .	Warren and Webano . . . . .	"	"	36
Heath ave. . . . .	Heath pl. and Heath . . . . .	"	"	48
Edgehill . . . . .	Round Hill and Gay Head . . . . .	"	"	625
Gaston . . . . .	Blue Hill and Dakota aves. . . . .	"	"	190
Gurney . . . . .	Tremont and Parker . . . . .	"	"	36
St. Mary . . . . .	Commonwealth ave. and B. & A. R.R. . .	"	"	217
Blackwell . . . . .	Neponset ave. and Bowman . . . . .	Dor.	"	97
Dudley . . . . .	Monadnock and Nonquit . . . . .	"	"	189
Pleasant pl. . . . .	From Savin Hill ave. . . . .	"	"	91
Brent . . . . .	Washington and Carlisle . . . . .	"	"	190
Granville pl. . . . .	From Dean ave. . . . .	"	"	87
Eaton . . . . .	" Tolman . . . . .	"	"	64
Street . . . . .	" New Minot . . . . .	"	"	212
Birch . . . . .	Chapman ave. and Oak terrace . . . . .	"	"	52
Oak terrace . . . . .	Birch and Lyons . . . . .	"	"	491
Cunningham . . . . .	Howard ave. and Magnolia . . . . .	"	"	236
Oleander . . . . .	Bird and Alexander ave. . . . .	"	"	262
Josephine . . . . .	Geneva ave. and Ditson . . . . .	"	"	257
Corbett . . . . .	Morton and Evans . . . . .	"	"	117
Chapman ave. . . . .	Tucker and Lauriat ave. . . . .	"	"	108
Vose . . . . .	Butler and Crest . . . . .	"	"	435
Evans . . . . .	Corbett and Morton . . . . .	"	"	263
Hopkins . . . . .	Evans and Corbett . . . . .	"	"	44
Faulkner . . . . .	Freeman and Trowbridge court . . . . .	"	"	166
Freeman . . . . .	Faulkner and Charles . . . . .	"	"	17
Elmont . . . . .	From Waterlow . . . . .	"	"	80
Street . . . . .	" Ballou ave. . . . .	"	"	106
Baker pl. . . . .	" Washington . . . . .	"	"	6
Rill . . . . .	" Ware . . . . .	"	"	42
Street . . . . .	" Carruth . . . . .	"	"	38
	<i>Carried forward</i> . . . . .			14,288

Statement of Location, Size, etc. — *Continued.*

In what Street.	Between what Streets.	District.	Size.	Length.
	<i>Brought forward</i> . . . . .			14,288
Wrentham . . . . .	Dorchester ave. and Ashmont . . . . .	Dor.	6	411
Elton . . . . .	" " " Sagamore . . . . .	"	"	238
Albert pl. . . . .	From Adams . . . . .	"	"	171
Street . . . . .	" Norfolk . . . . .	"	"	128
Lyndhurst . . . . .	Allston and Washington . . . . .	"	"	604
Bowdoin sq. . . . .	Dakota and Westville ave. . . . .	"	"	142
Dakota . . . . .	Geneva ave. and Bowdoin sq. . . . .	"	"	24
Leroy . . . . .	" " " Ditson . . . . .	"	"	105
Branch . . . . .	Medway and Butler . . . . .	"	"	232
Bradlee . . . . .	Algonquin and School . . . . .	"	"	690
Mt. Everett . . . . .	Barrington and Quincy . . . . .	"	"	68
Neponset ave. . . . .	King and Boutwell ave. . . . .	"	"	603
Whitfield . . . . .	Wheatland and Northern aves. . . . .	"	"	90
Sewell . . . . .	From Neponset ave. . . . .	"	"	176
Dalmatia . . . . .	Howard and Blue Hill aves. . . . .	"	"	305
Percival ave. . . . .	Fox and Church . . . . .	"	"	253
Tilston . . . . .	Blue Hill ave. and Walkhill . . . . .	"	"	701
Clarkson . . . . .	Quincy and Barrington . . . . .	"	"	48
Wheatland ave. . . . .	Kilton and N. Y. & N. E. R.R. . . . .	"	"	44
Auckland . . . . .	Elton and Belfort . . . . .	"	"	135
Buttonwood . . . . .	Vernon and Locust . . . . .	"	"	412
Street . . . . .	From Magnolia . . . . .	"	"	218
Hawes ave. . . . .	Bowdoin ave. and Washington . . . . .	"	"	230
Grace ave. . . . .	Arcadia and Robinson . . . . .	"	"	155
Carson . . . . .	Mt. Vernon and the water . . . . .	"	"	203
Norwood . . . . .	From Tolman . . . . .	"	"	441
Folsom . . . . .	Dudley and Harlow . . . . .	"	"	169
Tremlet park . . . . .	Hooper and Waldeck . . . . .	"	"	974
Shawmut park . . . . .	King and Rosemont . . . . .	"	"	241
White . . . . .	From McClellan . . . . .	"	"	68
Judson . . . . .	W. Cottage and Julian ave. . . . .	"	"	170
Leeds . . . . .	From Savin Hill ave. . . . .	"	"	65
Bowman . . . . .	Blackwell and Chickatawbut . . . . .	"	"	174
Granger . . . . .	Clayton and Duncan . . . . .	"	"	48
	<i>Carried forward</i> . . . . .			23,112

Statement of Location, Size, etc. — *Continued.*

In what Street.	Between what Streets.	District.	Size.	Length.
	<i>Brought forward</i> . . . . .			23,112
Arundel . . . . .	From Beaumont . . . . .	Dor.	6	418
Arcadia court . . . . .	From Dorchester ave. . . . .	"	"	334
Morse . . . . .	Bowdoin ave. and Washington . . . . .	"	"	54
Hillside terrace . . . . .	Bailey and Fuller . . . . .	"	"	126
Fenton pl. . . . .	Fenton and Greenwich . . . . .	"	"	81
Howe . . . . .	From Hancock . . . . .	"	"	206
Ballard way . . . . .	" Jamaica . . . . .	W. Rox.	"	98
Jackson pl. . . . .	" Washington . . . . .	"	"	234
Huntington ave. . . . .	Canterbury and Hyde Park line . . . . .	"	"	339
Robert . . . . .	Brookfield and So. Walter . . . . .	"	"	190
Prospect ave. . . . .	Sheldon and Sycamore . . . . .	"	"	116
Keyes . . . . .	Meehan and Forest Hills . . . . .	"	"	470
Street . . . . .	From Weldon . . . . .	"	"	150
Buchanan court . . . . .	" South . . . . .	"	"	114
Street . . . . .	" Gardner . . . . .	"	"	13
Street . . . . .	" Union ave. . . . .	"	"	146
Abbott . . . . .	" Willow . . . . .	"	"	201
Ashfield . . . . .	Walter and Fairview . . . . .	"	"	367
Myers . . . . .	From Spruce . . . . .	"	"	197
Brook . . . . .	Florence and Sycamore . . . . .	"	"	87
Cornell . . . . .	Roslindale and Orange . . . . .	"	"	257
Atherton ave. . . . .	Washington and Albano . . . . .	"	"	173
Bradstreet . . . . .	From Mt. Hope . . . . .	"	"	153
Clifton . . . . .	Albano and Norfolk . . . . .	"	"	476
James . . . . .	Kittredge and Poplar . . . . .	"	"	362
So. Fairview . . . . .	Brookfield and So. Walter . . . . .	"	"	96
Plainsfield . . . . .	Keyes and Williams . . . . .	"	"	173
Ballard pl. . . . .	From Ballard . . . . .	"	"	30
Henshaw . . . . .	" Centre . . . . .	"	"	370
Pomfret . . . . .	Corey and Maple . . . . .	"	"	260
Cornwall . . . . .	Brookside ave. and Stony Brook . . . . .	"	"	197
Paul Gore . . . . .	Lamartine and Danforth . . . . .	"	"	139
Wenham . . . . .	Hyde Park ave. and Yale . . . . .	"	"	116
Ballard . . . . .	Centre and Custer . . . . .	"	"	173
	<i>Carried forward</i> . . . . .			30,023

Statement of Location, Size, etc. — *Continued.*

In what Street.	Between what Streets.	District.	Size.	Length.
	<i>Brought forward</i> . . . . .			30,028
Metcalf . . . . .	From Dudley . . . . .	W. Rox.	6	174
Jones . . . . .	Fairview and Walter . . . . .	"	"	365
Custer . . . . .	From Goldsmith . . . . .	"	"	96
Rockview pl. . . . .	" Rockview . . . . .	"	"	196
Maxfield . . . . .	Bellevue and La Grange . . . . .	"	"	219
Egleston . . . . .	Boylston and School . . . . .	"	"	36
Paul Gore . . . . .	Centre and Chestnut ave. . . . .	"	"	209
Arundel . . . . .	Walter and Centre . . . . .	"	"	482
Starr lane . . . . .	Centre and Seaverns ave. . . . .	"	"	48
Metropolitan ave. . . . .	From Washington . . . . .	"	"	63
Woodside . . . . .	" Burroughs . . . . .	"	"	284
Lexington ave. . . . .	Washington and Union . . . . .	Bri.	"	96
Webster . . . . .	From Cambridge . . . . .	"	"	270
Grant ave. . . . .	" Wilton . . . . .	"	"	183
Rena . . . . .	North Harvard and Hubbard . . . . .	"	"	181
Mansfield . . . . .	Bradbury and Eaton . . . . .	"	"	168
Madison ave. . . . .	Washington and Union . . . . .	"	"	164
Wadsworth . . . . .	Ashford and Pratt . . . . .	"	"	347
Silkirk road . . . . .	Sutherland and Kilayth roads . . . . .	"	"	123
Seattle . . . . .	Home ave. and Cambridge . . . . .	"	"	238
Almy . . . . .	Windom and Seattle . . . . .	"	"	192
Sorrento . . . . .	Cambridge and Home ave. . . . .	"	"	275
Kenneth . . . . .	Franklin and Bayard . . . . .	"	"	212
Bayard . . . . .	Kenneth and Weitz . . . . .	"	"	224
Harriet . . . . .	From Parson . . . . .	"	"	495
Kilayth road . . . . .	Lanark and Lanark road . . . . .	"	"	495
Chiswick road . . . . .	Silkirk road and Commonwealth ave. . . . .	"	"	341
Dunboy . . . . .	High and Faneuil . . . . .	"	"	140
Hollis pl. . . . .	From Allston . . . . .	"	"	31
Haskell road . . . . .	Coolidge and Holland roads . . . . .	"	"	616
Richardson . . . . .	From Western ave. . . . .	"	"	119
Andrew road . . . . .	Coolidge and Holland roads . . . . .	"	"	573
Homer road . . . . .	" " " " . . . . .	"	"	508
	Total 6-Inch . . . . .			38,190

Statement of Location, Size, etc.— *Concluded.*

In what Street.	Between what Streets.	District.	Size.	Length.
Winter pl. . . . .	From Winter . . . . .	B.	4	108
Haymarket pl. . . . .	Avery and Bumstead court . . . . .	"	"	44
K-street pl. . . . .	From K . . . . .	S.B.	"	123
Street . . . . .	" Third . . . . .	"	"	114
Cherry court . . . . .	" Cherry . . . . .	Rox.	"	209
Dana court . . . . .	" Dana . . . . .	"	"	46
Clayton pl. . . . .	" Clayton . . . . .	Dor.	"	147
Street . . . . .	" Oakdale . . . . .	W. Rox.	"	130
Street . . . . .	" Chestnut ave. . . . .	"	"	116
Brookside ave. . . . .	Green and Cornwall . . . . .	"	"	220
Morgan pl. . . . .	From Grover . . . . .	"	"	155
	Total 4-inch . . . . .			1,411
Total number feet laid . . . . .			30	3,998
" " " " . . . . .			24	2,018
" " " " . . . . .			16	1,838
" " " " . . . . .			12	31,367
" " " " . . . . .			10	6,371
" " " " . . . . .			8	25,985
" " " " . . . . .			6	38,190
" " " " . . . . .			4	1,411
" " " " . . . . .				111,178



**Statement of Location, Size, and Number of Feet of Pipe  
Relaid and Abandoned in 1891.**

In what Street.	Between what Streets.	District.	Size.	Length Abandoned.	Size of Pipe as Relaid.
Berkeley . . . . .	Chandler and Columbus ave. . . . .	B.	12	154	12
Harvard . . . . .	Blue Hill ave. and Abbott . . . . .	Dor.	12	206	12
	Total 12-inch . . . . .	"		360	
Randolph . . . . .	Albany and Harrison ave. . . . .	B.	6	445	10
Plympton . . . . .	" " " " . . . . .	"	"	405	10
Wareham . . . . .	" " " " . . . . .	"	"	372	10
Malden . . . . .	" " Wareham . . . . .	"	"	786	8
Fourth . . . . .	Q and the park . . . . .	S.B.	"	194	0
E . . . . .	Second and Athens . . . . .	"	"	442	12
Vinton . . . . .	Preble and Dorchester . . . . .	"	"	107	8
B . . . . .	First and Second . . . . .	"	"	273	12
Downer . . . . .	From Tremont . . . . .	Rox.	"	766	0
St. Mary . . . . .	Commonwealth ave. and B. & A. R.R. . . . .	"	"	141	6
Baker pl. . . . .	From Bird . . . . .	Dor.	"	60	0
	Total 6-inch . . . . .			3,983	
Winter pl. . . . .	From Winter . . . . .	B.	4	106	4
Tudor . . . . .	D and E . . . . .	S.B.	"	163	6
Bolton . . . . .	At E . . . . .	"	"	55	6
Vinton . . . . .	Preble and Dorchester . . . . .	"	"	559	8
Forbes . . . . .	From Chestnut ave. . . . .	W.R.	"	30	6
	Total 4-inch . . . . .			915	
			Lead.		
St. Mary . . . . .	Commonwealth ave. and B. & A. R.R. . . . .	Rox.	1½	86	6

## Statement of Pipes Lowered.

In what Street.	Between what Streets.	District.	Size.	Length.
Dudley . . . . .	At Hampden . . . . .	Rox.	24	100
	Total 24-inch . . . . .			100
Munroe . . . . .	Humboldt ave. and Hazelwood . . . . .	"	12	295
	Total 12-inch . . . . .			295
Symmes . . . . .	From Walter . . . . .	W.R.	8	400
	Total 8-inch . . . . .			400
Seattle . . . . .	Cambridge and Home ave. . . . .	Bri.	6	300
Dunboy . . . . .	Bigelow and High . . . . .	"	6	268
	Total 6-inch . . . . .			568

## Raised.

Starbridge . . . . .	Sandford and River . . . . .	Dor.	6	631
	Total 6-inch . . . . .			631

*Table showing the Length of Supply and Distribution Mains laid during the Year 1891, and the Length connected with the Sudbury and Cochituate Works, February 1, 1892.*

		DIAMETER OF PIPES IN INCHES.														Totals.
		60	48	40	36	30	26	24	20	16	12	10	8	6	4	
EASTERN DIVISION.																
	Length in use Jan. 1, 1891 . . . . .		25,571	23,054	20,844	53,551	244	55,841	59,484	68,038	744,998	37,452	288,215	1,106,201	126,428	2,609,821
	Stopcocks in same . . . . .			7	12	22		47	36	95	1,122	44	539	2,846	625	5,396
	Length laid or relaid during the year . . . . .					3,998		2,018		1,838	31,367	6,371	25,985	38,190	1,411	111,178
	Stopcocks in same . . . . .					1				5	49	12	60	149	14	290
	Length abandoned during the year . . . . .															
	Stopcocks in same . . . . .										890			3,983	915	5,258
	Stopcocks in same . . . . .													9	2	11
	Length in use Feb. 1, 1892 . . . . .		25,571	23,054	20,844	57,549	244	57,859	59,484	69,876	775,905	43,823	314,200	1,140,408	126,924	2,715,741
	Stopcocks in same . . . . .		1	7	12	23		47	36	100	1,171	56	599	2,986	637	5,675
WESTERN DIVISION.																
	Length in use Feb. 1, 1892 . . . . .	266	16,051	1,435	1,166	2,140				20	2,043					23,481
	Stopcocks in same . . . . .		5		3					2	4				2	16
Total connected with the works Feb. 1, 1892 . . . . .																
		266	41,622	24,489	22,010	59,689	244	57,899	59,484	69,896	777,948	43,823	314,200	1,140,768	126,924	2,739,522, or 518.76 miles.

*Statement of Hydrants, Blow-off and Reservoir Pipes, Feb. 1, 1892.*

	DIAMETER IN INCHES.					Totals.
	10	12	9	6	4	
Total length in use Jan. 1, 1891 . . . . .	272	6,883	3,046	13,308	11,064	34,671
Length laid or relaid during the year . . . . .	.....	8	.....	1,827	.....	1,835
Length abandoned during the year . . . . .	.....	19	12	70	186	287
Total length in use Feb. 1, 1892 . . . . .	272	6,872	3,044	16,195	10,878	34,219

### Statement of Service-Pipes Laid and Abandoned in 1891.

SIZE OF SERVICES.	BOSTON.		SOUTH BOSTON.		EAST BOSTON.		ROXBURY.		DORCHESTER.		WEST ROXBURY.		BRIGITON.		TOTALS.	
	Number of Services.	Length in Feet.	Number of Services.	Length in Feet.	Number of Services.	Length in Feet.	Number of Services.	Length in Feet.	Number of Services.	Length in Feet.	Number of Services.	Length in Feet.	Number of Services.	Length in Feet.	Number of Services.	Length in Feet.
Inch laid . . . . .	6	999	1	24	. . . . .	. . . . .	3	87	. . . . .	. . . . .	1	17	. . . . .	. . . . .	10	1,127
" " " " " "	26	1,021	2	56	. . . . .	. . . . .	2	86	2	60	3	103	3	96	39	1,520
" abandoned . . . . .	1	40	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	1	40
" laid . . . . .	35	971	2	67	1	63	9	270	1	96	. . . . .	. . . . .	1	118	49	1,585
" " " " " "	7	129	1	48	. . . . .	. . . . .	3	75	. . . . .	. . . . .	2	48	2	57	15	357
" abandoned . . . . .	6	195	. . . . .	. . . . .	1	6	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	7	201
" laid . . . . .	14	339	1	58	1	25	5	159	1	3	2	51	. . . . .	. . . . .	24	635
" abandoned . . . . .	7	126	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	7	126
" laid . . . . .	14	513	. . . . .	. . . . .	. . . . .	. . . . .	2	57	1	8	. . . . .	. . . . .	1	50	18	623
" abandoned . . . . .	1	28	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	1	28
" laid . . . . .	51	1,641	13	438	4	111	15	353	2	156	5	191	9	37	92	2,927
" abandoned . . . . .	11	358	1	58	. . . . .	. . . . .	1	18	. . . . .	. . . . .	. . . . .	. . . . .	2	19	15	453
" laid . . . . .	45	1,551	3	55	6	118	63	2,116	4	106	11	361	5	318	137	4,625
" abandoned . . . . .	6	167	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	1	17	7	184
" laid . . . . .	67	1,712	149	4,006	161	4,801	497	12,984	502	15,344	344	8,793	270	8,920	1,990	56,560
" abandoned . . . . .	96	2,640	11	302	18	300	16	382	8	337	2	32	4	80	185	4,073
" " " " " "	5	109	4	111	10	229	3	81	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	22	530
Total laid . . . . .	204	8,776	172	4,752	173	6,118	600	16,187	511	15,777	369	9,054	284	9,605	2,374	69,560
" abandoned . . . . .	135	3,693	16	471	29	535	20	441	8	237	2	32	7	116	215	6,095
Net increase . . . . .	131	5,113	156	4,281	144	4,583	580	15,746	503	15,540	367	9,022	277	9,479	2,159	61,224

Three hundred and twenty-seven hydrants have been established and eighty abandoned during the year 1891.

	ESTABLISHED.					ABANDONED.					Net Increase.
	Lowry.	Post.	Boston Lowry.	Boston.	Total.	Lowry.	Post.	Boston Lowry.	Boston.	Total.	
Boston . . . . .	8	15	5	..	28	1	..	4	9	14	14
South Boston . . . . .	11	10	4	..	25	..	..	1	9	10	15
East Boston . . . . .	1	2	1	..	4	..	..	1	..	1	3
Roxbury . . . . .	10	29	15	1	55	6	1	4	6	17	38
Dorchester . . . . .	4	65	27	..	96	2	..	12	6	20	76
West Roxbury . . . . .	1	37	14	..	52	..	..	7	2	9	43
Brighton . . . . .	7	44	16	..	67	..	..	7	2	9	58
	42	202	82	1	327	9	1	36	34	80	247

Hydrants taken and repaired . . . . .	219
Hydrant-boxes renewed . . . . .	202
Gate-boxes renewed . . . . .	248
Deacon meter-boxes renewed . . . . .	5

### Total Number of Hydrants in use Feb. 1, 1891.

	Lowry.	Post.	Boston Lowry.	Boston Y.	Boston.	Total.
Boston . . . . .	671	218	69	..	524	1,482
South Boston . . . . .	211	84	20	1	265	581
East Boston . . . . .	138	80	24	..	138	380
Roxbury . . . . .	668	146	63	..	101	978
Dorchester . . . . .	574	302	179	..	76	1,131
West Roxbury . . . . .	114	371	161	..	51	697
Brighton . . . . .	73	246	59	..	36	414
Deer Island . . . . .	..	16	..	..	..	16
Brookline . . . . .	5	..	..	..	3	8
Chelsea . . . . .	..	..	..	..	7	7
Quincy . . . . .	..	7	..	..	..	7
Long Island . . . . .	..	4	..	..	..	4
	2,454	1,474	575	1	1,201	5,705

## Repairs of Pipes during the Year 1891.

	Diameter of Pipes in Inches.																Total.			
	40	36	30	24	20	16	12	10	8	6	4	3	2 1/2	1 1/2	1	3/4				
Boston . . . . .	2	8	5		7	7	23	1	5	41	22	2	14	5	1	13	9	312	5	477
South Boston . . . . .					2		2			10	3		4					70	8	99
East Boston . . . . .					11	2	8			4	1		2	1		3	1	52	1	86
Roxbury . . . . .				1	2		3		2	5	3	1	6	1	1	1		133	1	160
Dorchester . . . . .							3			8			2		1	1		51	1	67
West Roxbury . . . . .							2			1			6				5	30		44
Brighton . . . . .							1			1								14		16
Newton Lower Falls . . . . .	2																			2
Deer Island . . . . .									1											1
	4	3	5	1	22	9	42	1	8	70	29	3	34	7	3	18	15	662	16	952

Causes of leaks that have occurred in pipes of 4 inches diameter and upwards :

Settling of earth . . . . .	20
Blasting . . . . .	1
Defective joints . . . . .	103
" pipes . . . . .	10
" stopcocks . . . . .	5
" packing . . . . .	48
" stuffing-box . . . . .	6
" clamps . . . . .	1

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Of 3-inch and in service-pipes :

Settling of earth . . . . .	189
Gnawed by rats . . . . .	14
Defective joints . . . . .	20
" packing . . . . .	7
" coupling . . . . .	17
" stopcocks . . . . .	45
" pipes . . . . .	111
" uprights . . . . .	48
" valves . . . . .	17
Plug loose . . . . .	1
Struck by pick . . . . .	60

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Carried forward . . . . .

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# WATER-SUPPLY DEPARTMENT.

53

<i>Brought forward</i>	.	.	.	.	.	529	194
Drilling	.	.	.	.	.	1	
Eaten by soil	.	.	.	.	.	9	
Fire	.	.	.	.	.	1	
Broken by steam-roller	.	.	.	.	.	6	
In way of sewer	.	.	.	.	.	33	
						<hr/>	579
Stoppage by							
Dirt	.	.	.	.	.	32	
Gasket	.	.	.	.	.	8	
Fish	.	.	.	.	.	6	
Rust	.	.	.	.	.	116	
Frost	.	.	.	.	.	17	
						<hr/>	179
Total	.	.	.	.	.		<hr/>
							<u>952</u>



## Statement of Leaks and Stoppages, 1850-1891.

YEAR.	DIAMETER.		Total.
	Four inches and upwards.	Less than four inches.	
1860 . . . . .	32	72	104
1861 . . . . .	64	173	237
1862 . . . . .	82	241	323
1863 . . . . .	86	260	345
1864 . . . . .	74	280	354
1865 . . . . .	75	219	294
1866 . . . . .	76	232	307
1867 . . . . .	86	278	363
1868 . . . . .	77	234	401
1869 . . . . .	82	449	531
1860 . . . . .	134	458	592
1861 . . . . .	109	399	508
1862 . . . . .	117	373	490
1863 . . . . .	97	397	494
1864 . . . . .	96	504	489
1865 . . . . .	111	496	607
1866 . . . . .	139	536	675
1867 . . . . .	122	487	609
1868 . . . . .	82	449	531
1869 . . . . .	82	407	489
1870 . . . . .	187	707	926
1871 . . . . .	185	1,380	1,565
1872 . . . . .	188	1,459	1,647
1873 . . . . .	158	1,076	1,239
1874 . . . . .	434	2,160	2,554
1875 . . . . .	208	725	928
1876 . . . . .	214	734	948
1877 . . . . .	109	801	910
1878 . . . . .	213	1,024	1,237
1879 . . . . .	211	996	1,206
1880 . . . . .	135	929	1,064
1881 . . . . .	145	883	1,028
1882 . . . . .	170	1,248	1,418
1883 . . . . .	171	782	953
1884 . . . . .	253	1,127	1,380

**Statement of Leaks and Stoppages, 1850-1891.— *Concluded.***

YEAR.	DIAMETER.		Total.
	Four inches and upwards.	Less than four inches.	
1855 . . . . .	111	638	749
1886 . . . . .	150	725	875
1887 . . . . .	172	869	1,040
1888 . . . . .	216	1,140	1,356
1889 . . . . .	183	849	1,032
1890 . . . . .	180	718	898
1891 . . . . .	179	758	952

Respectfully submitted,

WILLIAM J. WELCH,  
*Superintendent Eastern Division.*

## REPORT OF THE RESIDENT ENGINEER AND SUPERINTENDENT OF THE WESTERN DIVI- SION.

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SOUTH FRAMINGHAM, Jan. 1, 1892.

ROBERT GRANT, Esq., *Chairman Boston Water Board:*

SIR: The annual report of the Western Division of the Boston Water-Works is submitted herewith.

### SUDBURY-RIVER BASINS.

*Water-shed, 75.2 square miles.*

The rainfall in 1891 was 49.21 inches, about 1.21 inches more than the average. The quantity of water has been abundant and the quality has been excellent. The rainfall for the last four months of the year was deficient, and the streams in consequence ran low and caused general alarm, but the drought was by no means protracted or severe.

A notable improvement has been completed at the outlet of Basin 4, and a large temporary weir twenty feet in width erected at the outlet of Lake Cochituate, to measure the water passing over the new dam.

A self-recording rain-gauge has been established at Cordaville, very nearly in the centre of the Sudbury-river watershed.

Many surveys have been made on different portions of the work for expected improvements in the way of taking land upon the borders of the brooks and regulating the swamps.

An extension to the old office at South Framingham was begun in November, and a new office built for the pollution department.

During the latter part of the autumn and early winter Basin 4 could not be called upon to supply the city, owing to the work going on at the outlet. Very careful studies have been made of the condition of the water in the various sources. The temperature and the number of the organisms have been recorded at the surface, mid-depth, and bottom of all the basins.

The construction of Basin 6 has been carried on during the season. A large amount of the stripping has been done

and the foundations of the core-wall have been back-filled to the surface of the ground and the earth embankment started. A dredging-plant has been built upon Whitehall pond.

### *Basin 1.*

*Grades, H. W., 161.00; Stone crest, 157.54.*

*Aren, 149 acres; Greatest depth, 14 feet; Contents, 288,000,000 gallons.*

On Jan. 1, 1891, this basin stood at elevation 157.66 above tide-marsh level in Boston, and water was wasting over the stone crest, and continued to waste until May 11, when both sets of stop-planks were put in place, and the water rose. On May 17 waste over the flash-boards began and continued, with the exception of May 28-30 and June 14-20, until July 3, when the supply for the city was drawn for a few days from this basin. The level fell to 157.07 on July 6. On September 8 the water rose to 158.07, and afterwards fell to 157.00, on November 9. The basin remained nearly at this elevation for the rest of the year.

Both sets of flash-boards were removed on October 31. The highest elevation reached during the year was 159.70, on January 12, and the lowest, 156.83, on November 22.

No water has been drawn from this source for the supply of the city, with the exception of the days already referred to.

The work of removing the gravel ridge from the bed of the river just below Winter street was resumed this year and completed. Some fencing has been removed around the basin, but with this exception no repairs or alterations of importance have been begun. The 48-inch main in the bottom of Basin 1 is in poor condition. I renew my recommendations of last year, that studies should be made during the coming year to put this basin in as good condition as Basins 2, 3, and 4 by removing the shallow flowage, and repairing the pipe-line, with a view to using the basin in the future for an additional settling basin.

A daily flow of at least one and one-half millions of gallons has been passed into the river below the dam, in accordance with the law.

On Aug. 13, 1891, a careful biological and chemical examination was made of the water in Basin 1, it having stood for some time without much circulation. Five different places were taken. The average temperature of the water at the surface was 78.7°, from two to three degrees higher than the surfaces of Basins 2 and 3 at the same time. The color at the surface was from 0.50 to 0.60, somewhat lower than the other basins. The organisms averaged approximately

300 to the cc., both at the surface and bottom, but the amorphous matter at the bottom was high, 1584.0 to the cc. *Protococcus* was the most numerous of the organisms. Chemical analyses made at the same time showed nothing unusual. The water was of normal quality.

### *Basin 2.*

*Grades, H. W., 168.00; Stone crest, 165.87.*

*Area, 137 acres; Greatest depth, 17 feet; Contents, 530,000,000 gallons.*

On Jan. 1, 1891, the surface of the water in this basin was at elevation 165.96, and water was flowing over the stone crest. It continued to overflow until May 9, when both sets of flash-boards were put in place. On May 13 water flowed over the flash-boards, and so continued until May 22, with the exception of May 15 and 16. The basin gradually fell to 157.64 on August 19, and remained at some point between 158.00 and 162.00 until December 8. During the remainder of the year, the level varied from 161.00 to 164.00. October 3 both sets of flash-boards were removed. The highest point reached during the year was 167.27, on May 18, and the lowest, 157.64, August 19.

Water for the supply of the city was drawn wholly from this source from May 16 to May 25, May 28 to June 11, June 14 to July 2, July 6 to August 19, September 15 to September 25, December 1 to December 2, and from Dec. 19 to date. The supply was drawn partially from this basin and partially from Basin 3, from January 1 to May 16, May 25 to May 28, June 11 to June 14, August 19 to September 15, September 25 to December 1, and from December 2 to December 19.

Seven hundred sixty-eight feet of old fence have been removed at the head of this basin, near Fountain street, and a new fence built and other portions of the old fence repaired. The gate-house, gates, dam, and other structures have been maintained in good condition during the year.

The number of organisms has been greater this year in Basin 2 than last year. The general mean at the surface has been about 322 to the cc., and the amorphous matter about the same, viz., 338. The color of the water at the surface has averaged 0.78 on the Nessler scale. Until May the organisms were low in Basin 2, then *Synedra* and *Cyclotella* appeared, and throughout the summer increased, but never rose much above 1,000 to the cc., well inside the danger-line. *Chlorophycæ* was also present. During the dry season, when the water was low, the organisms were unusually abundant. The experience of weekly examinations for two years has shown us that the predominant organisms

in Basin 2 are *Synedra*, *Cyclotella*, and *Protococcus*, and that the number of organisms per cc. is likely to rise to 500 *Synedra*, 150 *Cyclotella*, and 75 *Protococcus*.

During 1891, 45 observations have been made on the color of the influent water at the head of Basin 2, and it has been found to be usually 1.00. The lowest color observed was 0.32, and the highest 1.80.

### *Basin 3.*

*Grades, H. W., 177.00; Stone crest, 175.34.*

*Area, 283 acres; Greatest depth, 21 feet; Contents, 1,081,000,000 gallons.*

On Jan. 1, 1891, this basin stood at elevation 175.32, and water was flowing over the stone crest, and continued to waste either over the crest or through the gates until August 12, with the exception of the following days: January 27-29, February 4-8, 11-16, March 25, 26, 31 to April 1, May 2, 3, 8-12, 15-17, 27-30, June 14-17, and on July 28. After August 12 the surface fell gradually to 162.32 on November 24. From this time it rose quite steadily to 166.93, on December 31. The highest point reached during the year was 176.30, on January 12, and the lowest, 162.32, November 24.

Water for the supply of the city has been at no time drawn solely from this basin, but the storage was drawn upon after August 12 during the whole of the autumn, and the surface was drawn down about 13 feet. The dates on which the supply was taken partly from this basin, and partly from Basin 2, have already been given.

Until the last of April there were very few organisms in Basin 3. At this time there was a short but vigorous growth of *Synedra* and *Tabellaria*. *Chlorophyceæ* appeared in May and *Cyanophyceæ* in June, and until December they were both more or less numerous. From the middle of June to the middle of September the bottom was stagnant, and when this water had been brought into circulation, by the drawing down of the surface, and thus allowing the influence of the wind to be felt, there was a great increase in *Asterionella* and *Protococcus*. By the end of the year the organisms were again few in number. During the last part of April the color at the bottom of this basin began to increase from 0.65 to 2.40, on July 14, and, at the same time, the Amorphous matter increased from 150 to the cc. to about 6,000. A distinctly bad taste was noticeable in July, near the bottom, but, fortunately, we are not obliged to draw the supply in the summer from any other point than the surface.

The effect of drawing down the basin was particularly noticed in November. Last year the basin was only lowered 3.75 feet below the crest, and this was in the spring of the year. During the summer and autumn of 1890 the basin was practically full, and the organisms at no time rose above a monthly average of 325 at the surface, while in November, 1891, they rose to an average of 1,020 at the surface, and practically the same all the way to the bottom.

The advantage of having another large storage basin above Basin 3, to modify the character of the influent, will be very great. Surveys for this much-needed improvement have been begun and are in progress. Plans are also under way for a filter basin, which is much needed for the Marlboro' brook.

In last year's report I referred to the sudden increase of color observed in bottom samples after they were brought to the surface. On Aug. 1, 1891, the following observations were made on samples taken from the old river-bed in the bottom of the basin. The layer of dark water was found to be 3 feet deep. The color of the sample from the bottom when taken was 1.30. In five minutes after taking it was 1.60; ten minutes, 1.80; fifteen minutes, 1.90; thirty minutes, 2.20; two hours, 2.23; two days, 3.50. A sample taken three feet above the bottom was 1.20 when taken, 1.30 at the end of ten minutes, 1.40 at the end of a half-hour, and 1.80 at the end of two days.

The following table, the result of two years' observations, gives the prevailing organisms in Basin 3, together with the number per cc., which they are liable to reach.

500	<i>Asterionella</i> .	100	<i>Cælospherium</i> .
250	<i>Protococcus</i> .	100	<i>Tabellaria</i> .
250	<i>Synedra</i> .	50	<i>Cyclotella</i> .
150	<i>Chroococcus</i> .	30	<i>Clathrocystis</i> .

The color of the water at the surface has averaged 0.70, and the same figure holds good for the mid-depth also. The temperature of the surface has averaged about 53° Fahr. The following observations have been made during the past year on the brooks feeding the basin :

	No. of Obs.	Usual Color.	Minimum Color.	Maximum Color.
Stony Brook, below entrance of Angle Brook .	5	0.95	0.75	1.20
Stony Brook, above entrance of Angle Brook .	5	1.00	0.65	1.60
Stony Brook, above Southboro' . . . . .	5	1.50	0.82	2.40
Angle Brook, below Broad Meadow Brook . .	5	0.85	0.60	1.00
Angle Brook, above Broad Meadow Brook . .	4	0.60	0.50	0.75
Broad Meadow Brook . . . . .	3	1.20	1.10	1.50

The color of Stony-brook water throughout its whole length was at its highest point in July.

#### *Basin 4.*

*Grades, H. W., 215.21; Stone crest, 214.21.*

*Area, 162 acres; Greatest depth, 49 feet; Contents, 1,416,400,000 gallons.*

On Jan. 1, 1891, the surface of this basin stood at elevation 214.41, and water was wasting over the crest. This continued until January 24, when a waste-gate having been opened, the basin fell to 210.15, on January 31. The surface remained between 209 and 211 until March 26, when the waste-gate was closed, and the basin, on April 6, began to waste again over the stone crest. On May 9 a set of flash-boards were put on the dam, and a second set was added May 11. The basin was now kept at about 214.80 until July 15, when the storagewas drawn upon for the supply of the city. On September 26 the basin reached its lowest point, 202.91, when the gate was closed on account of work at the outlet. After this the water rose gradually to 207.77, on December 31.

Both sets of flash-boards were removed on October 3. The highest point reached by the water during the year was 215.20, on June 23, and the lowest, 202.90, on October 2.

On September 28 the force of men at work at the outlet of Lake Cochituate was transferred to Basin 4, and excavations begun for the new outlet to the overflow and pipes from the gate-house. It has been the intention of the Board to undertake this improvement for several years, but no proper opportunity has before presented itself. The 48-inch pipes under 50 feet head discharged formerly into the old brook channel, as did also the wasteway. There was no protection to the channel from scour, and the general appearance did not correspond with the substantial nature of the dam or the general work done by the city. The improvement consisted in digging a new outlet for the water with proper



alignment, and extending a canal through the meadow below as far as the first bridge. The first 287 feet of the channel was concreted and paved on the bottom and paved on the sides up to the high-water line. The concrete was finished on November 22, and the paving all completed on December 18. The excavations for the canal were then begun and are still in progress. Provision was made for inserting a temporary weir in the channel to measure the total leakage from the basin. Sheeting, tongued and grooved, was driven on the line of the weir and connected with the masonry. The mud on the line of the improvement had to be excavated for some distance on each side of the new work and its place filled with coarse gravel. The total cost of the work on the outlet proper, including filling the old channels, building weirs, and under-draining the side hill, was \$10,635.

In the early part of the summer a weir was placed across Cold Spring brook, at the head of the basin, connected with a gauge-house in which was placed a self-registering apparatus. By this means a continuous profile of flow has been obtained, to study in connection with the amount drawn from the basin, and the effect on the surrounding water tables.

The gate-house, which has been heretofore covered with a temporary wooden floor, has been fitted with steel beams and iron cover plates, to correspond with the floors in the other gate-houses.

One thousand one hundred and fifty-eight feet of fence have been built at this basin during the past year, principally between the city land and that owned by Eames & Handy.

The quality of the water has been excellent. The following is a list of the predominant organisms, founded on weekly observations for two years, together with the number per cc. which these organisms are liable to reach :

- 150 *Cyclotella*.
- 100 *Protococcus*.
- 20 *Closterium*.

The temperature of the water at the surface has averaged about 53° Fahr. The temperature at the bottom in summer is about 51.5°. The color at the surface has averaged 0.55 during the year, and at mid-depth about 0.65. The mean of the influent is about 1.23. The difference between these figures shows the beneficial effect of long storage.

Until May the organisms were few in number; at that time *Synedra* began, which was soon followed by a much

larger growth of *Protococcus* and *Cyclotella*. The *Protococcus* lasted only a short time, but *Cyclotella* have remained abundant ever since. The growth has been chiefly at the surface. Amorphous matter was quite abundant during October, and but little stagnation at the bottom was observed.

The following observations have been made on the feeder of Basin 4 :

	No. of Obs.	Usual Color.	Minimum Color.	Maximum Color.
Cold Spring Brook, at basin influent . . . . .	50	1.25	0.62	2.40
" " " above Pond's mill . . . . .	5	2.00	1.10	3.70

In the table appended to this report of this division will be found a detailed statement of the organisms which this basin contains and which are comparatively few in number.

### WHITEHALL POND.

*Elevation H. W., 327.91 ; Bottom of gates, 317.70 ; Area, 608 acres ; Contents, 1,337,000,000 gallons.*

On Jan. 1, 1891, the surface of the water in the pond stood at grade 324.91, three feet below high-water. On Jan. 25 the water had risen to 326.51, the highest point reached during the year. The surface then gradually fell to 326 on May 11. From this date the pond fell at the rate of about six inches per month until Nov. 26, when its surface stood at 322.43, the lowest point reached during the year. The water then rose to 322.94, on Dec. 31.

The waste-gates have been under the control of the mill-owners, and no attempts have been made to interfere with them. The gates have been closed from 2.30 P.M. Nov. 30 to 7 A.M. Dec. 1, and from 7 A.M. Dec. 4 to 7 A.M. Dec. 14,—a total of about 10½ days. During the remainder of the year one gate has been open all the time, to provide water for the use of the mills. A weir measurement has been kept of the amount of the effluent. From the first week in February to the first week in April large quantities of water were wasted in order to prevent the pond from rising too high. Calculations show that it is not safe to keep the pond within two feet of high-water with the present lack of a spillway. All the water wasted or used from the pond has to pass through the gates, and these are not of sufficient capacity to pass a very severe freshet. The attention of the County Commissioners has been called to

the inadequate size of the culvert under the highway at Wood's shoe-shop. It will not pass more than 50,000,000 gallons in 24 hours.

The distinguishing feature of the organisms in Whitehall pond is the large number of Infusorias found in its water compared with the other sources of Boston's supply. In February, Dinobryon, Glenodinium, and Tintinnidium were abundant. In June, Uroglena-Volvox appeared, and on June 11 there were 150 colonies to the cc. in some portions of the pond. The water was distinctly red, and looked like a mud puddle. The odor was very disagreeable. The air, blowing from the pond, smelled oily. The next day it was found that the water had cleared, and in a few days the odor was gone, and the water practically as good as ever. This process of rapid decay is characteristic of this little animal, but the effect on such a large mass of water is very curious. In September the organisms averaged about 20 to the cc., and considerable fresh-water sponge was noticed growing on the old stumps in the shallow portions of the pond. On Oct. 29 approximately 50 organisms to the cc. were present, including 15 Uroglena-Volvox, 18 Asterionella, etc. A dredging plant, consisting of one dredge, one steamer, and three scows, has been built during the year, preparatory to dredging the mud and stumps whenever this work can be done. The total cost has been \$13,944.29. The first work on the plant was started on July 24, and completed December 31.

#### FARM POND.

*Grade, H. W., 149.35 ; Area, 165 acres ; Contents, 167,500,000 gallons.*

On Jan. 1, 1891, the water in this pond stood at grade 149.36. The surface has been kept at about high-water mark during the year. No water has been drawn from this source for the supply of the city.

The Framingham Water Company has pumped 80,500,000 gallons during the year, or 221,000 gallons daily.

The total amount of water wasted from the pond has been 184,200,000 gallons. The larger part of this was turned into the Sudbury river.

The highest elevation reached during the year was 149.99, on March 25, and the lowest, 148.68, November 23.

The frames to the screens in the gate-house having become decayed, were renewed. They have been in service since October, 1881.

## LAKE COCHITUATE.

*H. W. 134.36; Area, 800 acres; Capacity above 137.36, 1,508,000,000 gallons.*

On Jan. 1, 1890, the lake stood at elevation 132.49, 1.87 feet below high-water. January 2 the waste-gate at the upper dam was opened, and, with the exception of 20 days, was kept open until April 25. During this interval the surface was kept at an average height of 133.20. On April 25 the water stood at 134.26. On May 5, the water still being at 134, the waste-gate was again opened, and the surface fell to 133.58 on May 11. The waste-gate was then finally closed, and the experiments on the flow of water over the new dam stopped. The lake gradually fell to 126.44, 7.92 feet below high-water, on November 26. On December 15 it was at 126.50, rising gradually to 127.32, on December 31.

Flash-boards were removed from the upper dam from January 25 to March 18, and from March 23 to April 11. The waste of water through the dam at outlet has amounted to 6,063,700,000 gallons.

A considerable amount of grading and other work has been accomplished during the year in the vicinity of the new dam. A bridge, supported on cast-iron brackets, has been built upon the crest of the new dam, and the brackets contain guides for a double set of stop-planks. April 1 the work of removing a portion of the old dam below the new dam was begun, the crest was lowered, and the old iron weir, 23 feet long, placed again in position at a lower level, with a channel of approach, etc., in order to measure accurately the water flowing over the new dam and determine certain coefficients. This work was hardly entered upon before it had to be abandoned for more pressing calls in other directions; but we hope to complete these experiments during the coming year. A road leading to the new dam has been built, its sides riprapped, the pool deepened between the dams, and the upper dam removed as far as possible, leaving only such parts of the embankment in position as will enable us to regulate the height of the water flowing over the new dam during the experiments. About 910 square yards of riprap and 113 square yards of paved gutter have been placed and about 5,000 cubic yards of earth removed.

During the autumn a large number of stumps were removed from the Snake brook meadow and other portions of the lake. Eleven thousand two hundred and eight feet of new fencing have been built and 12,808 feet of old fence repaired. The interior of the gate-house has been painted and repaired.

The quality of the water has been good throughout the

year. A table is appended showing the changes in the microscopical life from month to month, temperature, color, etc.

The following is a list of predominant organisms in Lake Cochituate, based on weekly observations for two years, together with the number of organisms per cc., sometimes reached, or which may be commonly looked for.

2,000 Asterionella.	150 Anabæna (sterile).
1,000 Tabellaria.	100 Cyclotella.
750 Melosira.	50 Microcystis.
300 Protococcus.	50 Monas.
250 Synedra.	25 Cœlospherium.
200 Crenothrix.	25 Clathrocystis.

The average temperature of the surface of the water has been about 53° Fahr., the mid depth 44°, and the bottom 42° at 70 feet. Concerning the average temperature at the bottom, I feel less sure every year. Our weekly observations, which are supposed to be taken to the tenth of a degree, show considerable variation, even during the period of stagnation. From July 13 to August 25 a thermometer enclosed in a large bottle was allowed to remain at the bottom. The average of eight observations made between those dates was 43.2° Fahr., the extremes being 43.1 and 43.4. On July 30 a careful observer was sent to the lake, and he found the temperature 43.2. The apparatus was lost on Sept. 3, and the thermometer was not left again at the bottom until September 23, which I think accounts for the high average in September, viz., 44.3°. From September 23 to the great turning over, the average of six observations gave 43.6. The grade of the surface was, however, about three feet lower than earlier in the season. From all the evidence in my possession, I am inclined to believe that, with a full lake, the bottom temperature would have been uniformly 43.2 from April to November; but this will be further investigated during the coming year.

At the beginning of 1891 Melosira and Asterionella were abundant. They decreased until March 1, when there were very few organisms. During April Asterionella multiplied rapidly, and on May 5 reached their maximum, 4,024 per cc., at the surface. The water had a slight local odor and taste characteristic of Asterionella. During May there was a slight growth of Tabellaria, Cyclotella, and Synedra. By the middle of June these had disappeared, and there were few diatoms during the summer months.

In June the Chlorophyceæ and Cyanophyceæ appeared and remained more or less abundant during the warm

weather. The water at the bottom of the lake began to be stagnant about the first of June. At first it became cloudy, then the color began to deepen, and continued to grow darker until Sept. 29, when it was a rich gold color, 5.00 on the Nessler scale. The amorphous matter in the meantime increased and *Crenothrix* became abundant.

On Nov. 3 this water was brought to the surface by the great overturning caused by temperature and gravitation, and there was a rapid increase of organisms. *Melosira*, *Asterionella*, and *Synedra* became abundant at all depths, and at the end of the year they were growing vigorously.

The temperature throughout the vertical did not become uniform until Nov. 10. On April 23 a careful examination of the water at fourteen different points was made, and in a general way the results were similar to those found the year before at the same time. The organisms were most abundant at the northerly end and decreased quite regularly towards the southern division. This regular decrease was most perfect in the case of the *Asterionella* at the surface. On Sept. 21 a layer of water about 15 feet deep and extending from 25 to 40 feet in depth had peculiar taste, and it was found to be due to the presence of about 14 *Synedra-Uvella* to the cc., an Infusorian formerly known to us by the name of *Hydromorum*.

The following examinations have been made of the brooks feeding the lake :

	No. of Obs.	Usual color.	Minimum color.	Maximum color.
Snake Brook, at mouth . . . . .	3	0.30	0.30	0.35
Pegan Brook, at mouth . . . . .	10	0.30	0.12	0.60
Dug Pond, outlet . . . . .	10	0.18	0.10	0.30
Courée Brook, at mouth . . . . .	16	1.20	0.58	2.30
Beaver Dam Brook, above Waushaken . . .	4	1.50	1.00	2.30
Beaver Dam Brook, outlet of Waushaken . .	5	0.35	0.25	0.40
Beaver Dam Brook, at mouth . . . . .	16	1.00	0.90	1.90

### DUDLEY POND.

*Grade, H. W., 146.46; 18-inch pipe, 130.36; 18-inch pipe, 127.36.*  
*Area, 81 acres; Greatest depth, 27 feet; Contents, 250,000,000 gallons.*

Water was drawn from this source between December 14 and December 31. When the stop-planks were removed from the inlet on the first-named date the water stood three feet below high-water, and the elevation of Lake Cochituate was 126.56.

On Jan. 1, 1892, the surface at Dudley pond had fallen to 139.46. The wooden stop-plank grooves in the gate chamber have been renewed.

### SUDBURY-RIVER AQUEDUCT.

*Grades, 141.952 at Farm pond ; 134.051 at terminal gate-house.*

*Length, 15.89 miles ; Size, 7 ft. 8 in. X 9 ft. ; Capacity, 109,000,000 gallons 24 hours.*

The three portions of this aqueduct are in excellent condition. They have all been thoroughly cleaned twice during the year. The Supply and Farm pond aqueducts were cleaned by machine on June 8 and October 27. The main aqueduct was cleaned by machine on June 30 and December 1 between Farm pond and the West Syphon Chamber, and by hand between the East Syphon Chamber and Chestnut-hill Reservoir on January 15, 16, and November 17, 18. On June 15, 16 the upper portion of the main aqueduct was cleaned by hand on those portions of the brickwork not reached by the machine, and comprising the upper arch. The bottom of Rockland-street tunnel was thoroughly cleaned and swept on December 8 and 9, and the bottom of the Badger-hill tunnel on December 14 and 15. *Spongilla fluviatilis* grows in these places, and it was all removed.

The water has been run through the whole length of all three aqueducts from the gate-house of Dam 1 throughout the year, which means that Farm pond has not been used as an intermediate storage reservoir, as is sometimes done. The water in Farm pond is now so good that it will be used during the coming year.

Owing to work on the Beacon-street tunnel, the aqueducts have been in use only during 274 days. They have carried 8,306,600,000 gallons to the city, or a daily average of 22,757,800 gallons for the year.

During the first week in September a large amount of dirt began to collect on the screens in the Farm-pond gate-house. The flow of the water was so seriously retarded that from September 16 to October 27 the screens had to be cleaned constantly day and night ; on the latter date, while cleaning the interiors, the Supply and Farm pond aqueducts were found to be very dirty. The 48-inch pipe in Basin 1 collects a great deal of dirt from the bottom of this basin, owing to its leaky condition, which shows the importance of taking this work in hand. The pipe-line has been flushed into the river below Dam 1 five times during the year.

The work of lining the Beacon-street tunnel was continued this year between Dec. 22, 1890, and May 7, 1891. About 342 feet of lining was placed in this interval. Work was

begun at Station 808+94.6 and finished at Station 810, connecting at this latter point with the old brick lining put in when the aqueduct was built. Work was then pushed in a westerly direction, beginning at Station 803+21 and completed to Station 800+95. Total length of lining completed between October, 1889, and the present date, 905 feet. We have lately been preparing to begin again the third season's work in the tunnel.

The cost of laying concrete this past year has been \$13.14 per cubic yard, exclusive of cost of track. Nine hundred and ninety-six cubic yards were placed. The work is done under great difficulties, but has been admirably managed by Mr. J. W. Oldham, the foreman in charge.

No extensive repairs have been found necessary to the structures along the line of the aqueduct. The terminal gate-house, however, was thoroughly pointed in the autumn. The embankments have received the usual attention, and the watercourses and culverts have been cleaned.

### COCHITUATE AQUEDUCT.

*Grades, 121.03 at lake; 116.77 at Brookline reservoir.*

*Length, 14.80 miles; Size, 5 ft. x 6 ft. 4 in.; Capacity, 20,000,000 gallons per 24 hours.*

This aqueduct has been in constant service throughout the year with the exception of twelve and one-half days, seven for cleaning and five and one-half for repairs on break in syphon line. A depth of six and one-half feet was maintained until October 18, which was as long as the height of the lake would permit the running of this amount of water. Since that date the depth at the intake has fluctuated with the varying heights of the lake.

On May 25, 26, 27, and again on November 9, 10, and 11, this aqueduct was thoroughly cleaned from the lake to Brookline reservoir. On the latter date the brickwork was very dirty, especially for the first 4,000 feet from the inlet.

On Sunday, April 19, a leak was discovered in the upper of the syphon pipes crossing the Charles-river valley at Newton Lower Falls. The leak was found by a little girl, who notified Mr. Ware, and although the side of the hill was washed out somewhat by the break, the water was shut off before serious results ensued.

The former break at this point, in March, 1859, was a disaster of considerable magnitude; but a repetition was happily avoided. There are four syphon lines at this point, one 36-inch pipe, two 30-inch pipes, and one 40-inch pipe. The break in 1891 was on the 40-inch line, and caused by the illegal filling of a street which carried the bell of the upper pipe down into the pipe below.



The ventilator was pointed September 28 to October 5, with Portland and elastic cements. No important repairs have been made on the rest of the aqueduct, but the bushes have been mowed and the embankments and fences repaired in the usual manner.

### CHESTNUT-HILL RESERVOIR.

*H. W., 125.00; Dam, 128.00; Effluent pipes, 99.80.*

*Area, Lawrence Basin, 37.5 acres; Contents, 166,000,000 gallons; Bradlee Basin, 87.5 acres; Contents, 391,000,000. Total contents above grade one hundred, 557,000,000 gallons.*

A large amount of work has been done at this point during the year. The grounds have not only been kept up to their usual high standard of maintenance, but extensive improvements have been inaugurated. The old circles near the intermediate gate-house have been taken out and the lines of the driveway changed so as materially to improve the appearance of the reservoir. The old road to Beacon street has been turned into a triangle to be planted with shrubs, and two new driveways opened, one on each side of the triangle. The work is still incomplete. A large number of hardy shrubs have been obtained and set out in the nursery preparatory to spring planting.

A new fence has been erected between the reservoir grounds and the cemetery. A police-signal system has been put around the driveway, connected with a Hall registering clock in the Superintendent's office, so that a daily register can be made of the beats of the police officers. The cost was about \$1,800. The driveways have been kept in good order.

The quality of the water in Chestnut-hill Reservoir has been good throughout the year. It is exceedingly difficult with the present awkward arrangement of inlets to provide a thorough mixture of Sudbury and Cochituate water. The former arrives, generally, at the reservoir with a color of 0.75, and the latter with a color of 0.25. To produce a satisfactory result they should both enter the Lawrence basin at the farthest point from the outlet. I have found, after careful study, that with the old order of things the Lawrence basin has been practically useless as influencing the stored water, as its water has been practically colorless from long standing and from the difficulty of making it play its part in the circulation. I have succeeded, after a number of experiments, and by keeping its surface somewhat higher than the Bradlee basin, in increasing its color and lessening that in the lower basin, but a few radical changes need to be made to produce a perfect result.

## BROOKLINE RESERVOIR.

*H. W., 125.00; Area, 23 acres; Greatest depth, 24 feet; Contents, 119,583,960 gallons.*

Everything in connection with the Brookline reservoir is in good order. One-half of the water used in Boston has been sent through this reservoir during the year. The water has been of the usual good quality. The effluent gate-house was thoroughly pointed during the autumn, and painted inside. No other work beyond the usual maintenance has been done.

## FISHER-HILL RESERVOIR.

*H. W., 241.00; Pipe inserts, 220.00; depth, 21 feet; Contents, 15,400,000 above 223.*

The reservoir is in good condition. The grounds have been maintained as usual by the Chestnut-hill Reservoir force.

## BIOLOGICAL LABORATORY.

This laboratory has turned out excellent work throughout the year. Besides the usual weekly examinations of the waters in all the storage reservoirs and sources of supply, sixty-five special reports have been made on subjects demanding investigation, such as the condition of the brooks feeding the Sudbury and Cochituate supplies. In the latter part of the year determinations of the bacteria in the water have been added to the other biological work. Photographs have been made from time to time of micro-organisms in the water, and after much trouble in this branch of the work we have succeeded in producing excellent plates. Four subjects have been reproduced by the heliotype process, and are shown in the accompanying plates.

## FILTRATION EXPERIMENTS.

These experiments have been carried on continually at Chestnut-hill Reservoir, and much information collected during the year.

## INSPECTION OF POLLUTIONS DEPARTMENT.

The following is a digest of the operations of the department for the year:

Total number of cases prepared for City Solicitor	31
Injunctions granted	17
Petitions for injunctions filed	6

Cases given to City Solicitor, but not filed in court	8
Legal notices sent	70
Cases inspected (old)	499
“ “ (new)	63

Of the 562 cases inspected, 152 are reported as "Remedied," 309 as "Safe at present," 45 "Seem safe," 9 "Suspected," 47 "Unsatisfactory."

#### QUALITY OF THE WATER.

The quality of the water has on the whole been very good throughout the year.

The following tables give, first, the average condition of the water as delivered at a tap in Boston during the year 1891, from analyses by Dr. Thomas M. Drown; and, secondly, means of quarterly analyses of 1890-2 of different portions of the supply. They afford a ready means for comparison with the condition of the water as given in the last annual report.

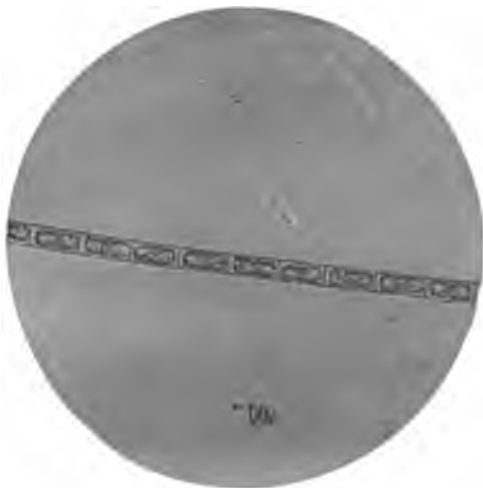
The succeeding tables contain the average results of biological examinations made during the past year, together with temperature observations and rainfall records.

DESMOND FITZGERALD,

*Resident Engineer and Sup't.*



**ASTERIONELLA (DIATOMACEÆ) × 285**



**MELOSIRA (DIATOMACEÆ) × 285**





**CLOSTERIUM (DESMIDIEÆ) × 200**



**MICRASTERIAS (DESMIDIEÆ) × 200**



Table I.—Tap Water, Boston, 1891.

PARTS IN 100,000.

LOCALITY.	Color.	RESIDUE ON EVAPORATION.			CHLORINE.		NITROGEN.				Oxygen Consumed.	Hardness.	REMARKS.
		Total.	Loss on Ignition.	Fixed.			Albuminoid Ammonia.		Free Ammonia.	As Nitrates.	As Nitrates.		
Service-pipe, Mass. Inst. of Technology.	0.37	4.39	1.63	2.76	0.37	.0161	Unfiltered.	.0136	.0005	.0001	.0227	1.7	Means of monthly analyses.
							Filtered.						



TABLE II.  
Means of Monthly Analyses, June, 1889, to December, 1891, by Dr. Thomas M. Drown.

PARTS PER 100,000.

Source.	Color.	Residue on Evaporation.		Chlorine.	Nitrogen.				Oxygen Consumed.	Hardness.	Remarks.	
		Total.	Loss on Ignit'n.		Albuminoid Ammonia.	Free Ammonia.	As Nitrites.	As Nitrates.				
					Unfiltered.	Filtered.						
Sudbury River, Upper and Res. No. 2, samples collected 1 ft. beneath surface	1.09	4.65	1.90	2.72	.29	.0283	.0248	.0013	.0001	.0110	1.3	
Reservoir No. 2, near gate-house, samples collected 8 ft. beneath surface	0.86	4.21	1.73	2.47	.27	.0257	.0215	.0010	.0001	.0102	1.2	
Sony Brook, Upper and Res. No. 3, samples collected 1 ft. beneath surface	0.92	6.54	2.20	4.34	.57	.0283	.0260	.0034	.0003	.0239	2.1	
Reservoir No. 3, near gate-house, samples collected 8 ft. beneath surface	0.71	4.97	1.72	3.24	.40	.0267	.0221	.0030	.0002	.0187	1.8	
Cold Spring Brook, at head of Reservoir No. 4	1.37	4.72	2.20	2.54	.24	.0301	.0269	.0014	.0001	.0091	1.3	
Reservoir No. 4, near gate-house, samples collected 1 ft. beneath surface	0.69	3.38	1.50	1.88	.21	.0218	.0186	.0010	.0001	.0073	1.1	
Reservoir No. 4, near gate-house, samples collected 20 ft. beneath surface	0.75	3.72	1.61	2.15	.22	.0222	.0186	.0022	.0001	.0089	1.4	
Reservoir No. 4, near gate-house, samples collected near bottom	0.74	3.82	1.52	2.35	.23	.0203	.0176	.0022	.0001	.0107	1.4	
Farm Pond, at gate-house	0.11	4.92	1.38	3.53	.62	.0204	.0171	.0022	.0001	.0064	2.0	
Dudley Pond	0.05	3.15	1.00	2.15	.23	.0274	.0229	.0019	.0000	.0035	1.3	Means, June to Sept., 1889, inclusive.
Lake Cochituate, gate-house	0.23	4.70	1.30	3.36	.45	.0189	.0154	.0019	.0002	.0199	2.0	
Parker-hill Reservoir	0.14	.....	.....	.....	.44	.0183	.0159	.0011	.0002	.0103	.....	Means, June to Nov., 1889, inclusive.
Service-pipes, Mass. Inst. Tech., Boston	0.41	4.52	1.50	2.99	.40	.0177	.0153	.0004	.0001	.0225	1.8	June, 1889, to Dec., 1891, inclusive.

Means, June to Sept., 1889, inclusive.

Means, June to Nov., 1889, inclusive.  
June, 1889, to Dec., 1891, inclusive.

TABLE III.  
Lake Cochituate, 1891.

MONTH.	ORGANISMS.				AMORPHOUS.				REMARKS.
	Sur.	Mid.	Bot.	Mean.	Sur.	Mid.	Bot.	Mean.	
January . . . . .	287	324	631	408	71	71	179	107	Diatoms, chiefly. { Melosira. Asterionella. Melosira. }
February . . . . .	79	156	165	133	60	63	113	79	" " { Asterionella. Melosira. }
March . . . . .	145	170	238	185	59	75	170	101	" " { Crenothrix, at the bottom. }
April . . . . .	1,127	930	689	915	119	95	112	109	" " { Infusoria. }
May . . . . .	2,752	1,312	1,028	1,691	171	144	464	260	" " { Asterionella. Melosira. Cyclotella. Synedra. }
June . . . . .	700	246	788	578	171	148	2,347	889	Tabellaria. { Crenothrix, at the bottom. }
July . . . . .	247	138	499	295	110	139	3,262	1,172	Cyclotella. { Crenothrix, at the bottom. }
August . . . . .	214	179	481	291	113	277	2,957	1,116	" " { Synedra. Crenothrix, at the bottom. }
September . . . . .	188	160	150	166	78	169	1,370	539	" " { Synura, at mid depth. }
October . . . . .	375	253	145	258	126	234	1,448	693	Synedra. { Synedra. Crenothrix, at the bottom. }
November . . . . .	1,045	1,077	952	1,025	247	214	953	237	Asterionella. { Infusoria. Crenothrix, at bottom. }
December . . . . .	1,712	1,886	2,038	1,872	225	206	209	213	Melosira. Synedra. { Infusoria. }
Mean . . . . .	736	569	630	651	129	133	1,074	452	Asterionella. { Infusoria. }

Desandlers, Chlorophyceae, Infusoria, Rotifera, present in small numbers throughout the year. The above figures are based on examinations made once each week.

TABLE III.—Continued.  
Basin 2, 1891.

MONTH.	ORGANISMS.					AMORPHOUS.					REMARKS.
	Sur.	Mid.	Bot.	Mean.	Influent.	Sur.	Mid.	Bot.	Mean.	Influent.	
January . . . . .	31	17	18	19	25	45	42	85	57	38	Diatoms. Moulds.
February . . . . .	22	12	9	14	17	37	62	57	53	59	"
March . . . . .	18	18	14	17	26	51	58	75	61	42	"
April . . . . .	63	60	46	56	34	65	90	111	89	47	Diatoms. {Synedra. Tabellaria. Infusoria.
May . . . . .	284	269	246	266	154	500	386	464	448	225	Diatoms. {Synedra. Chlorophyceae.
June . . . . .	163	173	139	158	85	215	234	436	295	242	Diatoms. {Cyclotella. Synedra. Chlorophyceae.
July . . . . .	276	281	307	288	112	388	530	906	625	250	Diatoms. {Cyclotella. Synedra. Chlorophyceae.
August . . . . .	809	300	364	324	172	660	998	1,213	857	449	Diatoms. {Cyclotella. Synedra. Chlorophyceae.
September . . . . .	571	426	472	490	192	654	652	704	670	338	Diatoms. {Cyclotella. Synedra. Chlorophyceae.
October . . . . .	1,014	829	664	836	100	887	803	621	770	360	Diatoms. {Cyclotella. Synedra. Chlorophyceae.
November . . . . .	987	780	828	865	55	347	452	309	399	140	Diatoms. {Cyclotella. Chlorophyceae.
December . . . . .	134	107	104	115	25	213	304	524	244	231	"
Mean . . . . .	322	273	268	288	83	338	363	443	381	210	

Zoopores, Infusoria, and Rotifera present in small numbers at all seasons.

The above figures are based on examinations made once a week.

TABLE III. — Continued.  
Basin 3, 1891.

MONTH.	ORGANISMS, CC.					AMORPHOUS.					REMARKS.
	Sur.	Mid.	Bot.	Mean.	Influent.	Sur.	Mid.	Bot.	Mean.	Influent.	
January . . . . .	26	36	45	36	10	54	90	64	69	36	Diatoms.
February . . . . .	12	8	11	10	23	81	84	85	83	150	Diatoms. Moulds.
March . . . . .	12	15	11	13	25	50	79	77	69	56	Diatoms.
April . . . . .	211	209	182	201	72	93	86	98	92	50	Diatoms. { Synedra, Tabellaria, Asterionella.
May . . . . .	549	514	770	611	157	206	262	440	303	171	Diatoms. { Synedra, Tabellaria, Asterionella.
June . . . . .	175	157	180	171	75	153	192	1045	472	360	Chlorophyceae.
July . . . . .	150	187	442	260	145	235	442	3139	1273	407	Chlorophyceae. crenothrix, at bottom.
August . . . . .	305	347	258	303	185	298	509	1506	772	202	Chlorophyceae. crenothrix, at bottom.
September . . . . .	233	244	282	253	801	335	381	1336	684	710	Chlorophyceae. crenothrix, at bottom.
October . . . . .	313	292	411	339	406	512	454	614	597	254	Chlorophyceae. Infusoria.
November . . . . .	1020	949	1063	1001	48	239	350	322	320	77	Diatoms (Asterionella).
December . . . . .	320	242	250	257	34	249	210	221	217	139	Chlorophyceae. Infusoria.
Mean . . . . .	277	267	323	298	165	213	261	718	407	226	

Zoospores, Dermidiae, Chlorophyceae, Infusoria, Rotifera, are found in small numbers throughout the year.  
The above figures are based on examinations made once each week.

TABLE III.—Continued.  
Basin 4, 1891.

MONTH.	ORGANISMS.					AMORPHOUS.					REMARKS.
	Sur.	Mid.	Bot.	Mean.	Influent.	Sur.	Mid.	Bot.	Mean.	Influent.	
January . . . . .	25	19	22	22	12	32	38	60	43	28	Diatoms. Moulds.
February . . . . .	11	10	13	11	15	29	57	56	51	50	"
March . . . . .	10	7	6	8	18	31	49	45	42	33	" Infusoria.
April . . . . .	34	25	27	29	30	45	63	65	58	43	"
May . . . . .	71	70	56	66	73	77	89	82	83	111	Diatoms (Synedra), Chlorophyceae.
June . . . . .	244	103	64	137	77	128	108	160	132	98	Diatoms (Cyclotella), Chlorophyceae.
July . . . . .	211	108	54	123	21	102	110	145	119	74	Diatoms (Cyclotella), Chlorophyceae.
August . . . . .	214	159	91	155	32	200	251	424	292	76	Diatoms (Cyclotella), Chlorophyceae.
September . . . . .	167	68	40	91	67	201	292	396	283	56	"
October . . . . .	140	128	111	129	57	322	412	516	419	84	"
November . . . . .	240	194	241	225	34	197	220	184	200	71	"
December . . . . .	179	257	275	237	10	84	134	148	122	30	"
Mean . . . . .	129	95	83	103	37	121	150	190	154	63	

Zoopores frequently present.  
The above figures are based on examinations made once each week.

TABLE III. — *Concluded.*

MONTH.	CHESTNUT-HILL RESERVOIR.						BROOKLINE RESERVOIR.			TAPS IN CITY.			
	Organisms.			Amorphous.			Effluent G. H.	Organisms.		Organisms, cc.		Amorphous.	
	Effluent G. H.	Sudbury G. H.	Cochituate G. H.	Effluent G. H.	Sudbury G. H.	Cochituate G. H.		Organisms.	Amorphous.	Boston Common.	Mattapan.	Boston Common.	Mattapan.
January . . . . .	138	20	312	49	36	65	115	64	90	50	32	10	
February . . . . .	97	11	87	67	35	40	54	39	58	32	26	16	
March . . . . .	123	9	112	43	29	38	96	41	65	24	30	27	
April . . . . .	349	109	921	70	66	63	378	80	342	124	134	47	
May . . . . .	671	494	2,115	225	392	156	597	210	494	251	216	40	
June . . . . .	338	147	591	141	212	100	214	144	408	137	271	73	
July . . . . .	301	197	332	215	471	154	191	274	211	77	289	205	
August . . . . .	229	208	207	200	472	129	142	185	141	46	172	89	
September . . . . .	167	189	167	167	415	109	181	199	116	49	102	85	
October . . . . .	184	421	378	115	371	137	229	157	175	61	211	55	
November . . . . .	380	780	847	158	250	150	565	200	473	92	160	51	
December . . . . .	428	213	1,279	177	440	172	433	190	410	87	180	96	
Mean . . . . .	284	229	613	135	266	109	266	149	248	86	152	66	

The above figures are based on weekly examinations.

TABLE IV.  
Temperatures for 1891 (Fahrenheit).

MONTH.	LAKE OCHUKTUATE.			BASIN 2.			BASIN 3.			BASIN 4.		
	Sur.	Mld.	Bot.	Sur.	Mld.	Bot.	Sur.	Mld.	Bot.	Sur.	Mld.	Bot.
January . . . . .	34.4	35.2	36.2	33.4	34.0	35.3	34.0	36.4	38.7	33.7	37.4	38.6
February . . . . .	34.3	35.8	36.9	33.8	34.4	35.5	34.1	34.7	36.7	33.4	36.8	39.3
March . . . . .	35.8	36.9	37.4	36.5	37.2	37.8	35.3	36.2	37.4	34.5	37.1	39.3
April . . . . .	43.6	44.5	43.2	51.2	50.8	50.4	50.5	49.3	49.2	48.5	46.6	44.8
May . . . . .	56.4	47.8	43.5	59.6	58.6	58.1	58.6	57.2	56.5	56.6	54.6	49.8
June . . . . .	69.1	48.9	44.4	69.7	67.0	63.7	68.3	66.2	58.7	66.9	58.4	51.0
July . . . . .	73.9	48.9	43.4	74.9	72.5	70.3	74.3	71.7	61.8	73.7	59.4	51.4
August . . . . .	74.4	50.3	43.7	74.4	73.1	72.4	74.1	72.4	63.6	74.5	59.0	52.0
September . . . . .	71.2	50.2	44.3	70.6	69.9	68.9	70.6	70.0	66.7	69.1	55.8	52.2
October . . . . .	57.4	48.8	43.7	54.2	54.2	50.4	56.4	56.4	56.0	56.7	53.7	51.6
November . . . . .	45.4	45.4	44.6	42.8	42.9	43.0	42.6	43.1	42.6	46.4	45.8	45.7
December . . . . .	39.3	39.3	39.9	35.9	36.8	37.1	35.5	36.9	36.3	38.5	38.9	39.0
Mean . . . . .	53.3	44.3	41.8	53.1	52.6	52.2	52.8	52.6	50.3	52.7	48.6	46.2

The above figures are based on observations made once each week.

**TABLE IV.**  
**Temperatures for 1891 (Fahrenheit).— Concluded.**

MONTH.	CHESTNUT-HILL RESERVOIR GATE-HOUSES.			CHESTNUT-HILL RESERVOIR.			BROOKLINE RESERVOIR. G. H.	TAP. Boston Common.	TAP. Mattapan.
	Sudbury.	Cochituate.	Effluent.	Sur.	Mid.	Bot.			
January . . . . .	35.8	36.0	34.6	. . .	. . .	. . .	36.1	39.9	42.0
February . . . . .	34.8	35.8	36.2	33.2	34.8	35.5	35.8	40.7	39.9
March . . . . .	36.4	37.3	36.8	37.7	37.6	37.9	37.4	41.8	39.9
April . . . . .	48.8	46.0	48.6	49.0	48.4	46.4	48.2	48.8	44.2
May . . . . .	57.0	55.9	57.4	57.9	56.3	54.5	56.9	56.2	50.7
June . . . . .	62.1	65.8	66.1	67.0	65.0	58.8	64.6	64.4	56.9
July . . . . .	71.9	71.5	72.3	73.4	70.2	57.2	71.7	70.8	60.6
August . . . . .	72.3	72.9	73.6	74.9	72.4	58.7	72.8	72.1	62.9
September . . . . .	60.8	60.2	60.3	70.4	68.8	59.5	60.4	60.0	62.5
October . . . . .	57.5	58.8	58.5	58.8	58.7	57.2	58.8	59.9	59.1
November . . . . .	44.5	46.5	45.2	45.2	45.6	45.1	44.4	47.3	51.4
December . . . . .	38.2	40.4	38.5	38.2	38.4	38.6	38.7	41.7	47.0
Mean . . . . .	52.4	53.0	53.1	55.0	54.2	49.7	52.9	54.4	51.4

The above figures are based on weekly observations.



TABLE V.  
Colors, 1891 (Nessler Scale).

MONTH.	LAKE COCHITUATE.					BASIN 2.					BASIN 3.					BASIN 4.				
	Sur.	Mid.	Bot.	Mean.	*In-fluent	Sur.	Mid.	Bot.	Mean.	Influent.	Sur.	Mid.	Bot.	Mean.	Influent.	Sur.	Mid.	Bot.	Mean.	Influent.
January	.22	.22	.27	.24	.63	.60	.78	.77	.72	.77	.54	.76	.84	.71	.83	.83	.80	.81	.81	.88
February	.35	.27	.46	.38	.58	.45	.62	.65	.57	.66	.44	.46	.56	.48	.60	.21	.74	.75	.57	.85
March	.33	.38	.45	.39	.49	.45	.48	.49	.47	.48	.48	.47	.48	.48	.52	.49	.69	.71	.63	.76
April	.39	.39	.39	.39	.89	.69	.68	.68	.68	.88	.64	.63	.64	.64	.90	.66	.67	.66	.66	1.11
May	.35	.35	.57	.42	.89	.92	.98	.94	.93	1.05	.87	.86	.88	.87	1.19	.75	.71	.71	.73	1.40
June	.31	.34	1.19	.61	.99	.91	.92	.95	.93	1.23	.86	.86	1.18	.97	1.38	.73	.72	.72	.72	1.46
July	.21	.28	1.51	.66	.60	.90	.89	.99	.92	1.00	.74	.75	2.02	1.17	1.20	.61	.61	.65	.62	1.21
August	.19	.38	2.56	1.04	.67	.84	.89	.95	.89	.93	.70	.79	3.17	1.55	.91	.55	.71	.74	.66	1.03
September	.13	.39	2.93	1.15	.92	.79	.81	.85	.81	.92	.70	.70	.82	.74	.89	.45	.62	.74	.60	1.39
October	.16	.36	3.75	1.43	.38	.88	.89	.90	.89	.96	.69	.69	.72	.70	.71	.47	.63	.82	.62	1.59
November	.33	.33	.34	.33	.90	.83	.83	.84	.83	.95	.64	.63	.64	.64	.63	.40	.44	.45	.43	1.40
December	.33	.33	.37	.34	.93	1.12	1.10	1.12	1.12	1.21	.86	.87	.87	.87	1.27	.45	.47	.47	.46	1.73
Mean	.28	.34	1.23	.61	.77	.78	.82	.85	.82	.92	.70	.70	1.07	.82	.93	.55	.65	.68	.63	1.23

\* Estimate based on colors taken in Beaver Dam, Course, and Snake brooks, and disregarding spring-water.  
The above figures are based on weekly observations.

Table V. — Colors, 1891. — *Concluded.*

MONTH.	CHESTNUT-HILL RESERVOIR. GATE-HOUSES.			CHESTNUT-HILL RESER- VOIR.				BROOKLINE RESER- VOIR. Gate-Houses.	TAP. Boston Common.	TAP. Mattapan.
	Sudbury.	Cochituate.	Effluent.	Sur.	Mid.	Bot.	Mean.			
January . . . .	.76	.22	.41	. . .	. . .	. . .	. . .	.45	.42	.38
February . . . .	.64	.30	.37	.26	.37	.40	.34	.41	.35	.33
March . . . . .	.51	.37	.41	.41	.41	.42	.41	.41	.39	.30
April . . . . .	.63	.35	.44	.45	.45	.45	.45	.48	.42	.32
May . . . . .	.90	.33	.45	.48	.46	.48	.48	.72	.51	.41
June . . . . .	.90	.27	.49	.52	.52	.43	.49	.77	.58	.61
July . . . . .	.82	.18	.40	.40	.41	.41	.41	.65	.51	.55
August . . . . .	.88	.17	.39	.40	.41	.32	.54	.53	.42	.42
September . . .	.81	.15	.37	.36	.36	1.30	.34	.40	.35	.38
October . . . .	.70	.12	.33	.34	.35	.67	.45	.36	.41	.34
November . . .	.70	.25	.37	.37	.37	.38	.37	.39	.37	.31
December . . .	1.06	.27	.50	.48	.48	.47	.48	.59	.52	.43
Mean . . . . .	.77	.25	.41	.40	.42	.61	.48	.51	.44	.40

The above figures are based on observations made once each week.

TABLE VI.  
Expended for Maintenance, Western Division, Jan. 1, 1891, to Jan. 31, 1892, inclusive (13 Months).

	Western Division.	Basins.	Subsidiary Aqueduct.	Cochlinate Aqueduct.	Lake Cochlinate.	Chestnut Hill Reservoir.	C. H. Driveway.	Brookline Reservoir.	Plaster-Hill Reservoir.	Biological Department.	Inspection Department.	Filtration.	Lining Tunnel.	Improvement Lake Cochlinate.	Protection of Supply Barveys.	Total.
Jan. 1, 1891	\$746 60	\$704 39	\$628 96	\$412 26	\$63 51	\$1,208 66	\$1,241 91	\$155 52	\$91 78	\$258 73	\$567 03	\$494 90	\$79 66	88 74	...	\$7,160 65
Feb. 1, "	727 08	441 03	338 17	381 83	244 63	941 79	378 18	170 02	46 73	253 10	414 00	448 52	1,647 84	212 07	...	6,648 99
Mar. 1, "	854 87	522 58	200 90	142 67	240 15	721 94	390 58	176 70	80 55	322 34	436 11	1,107 31	3,718 93	1,070 47	...	9,966 13
Apr. 1, "	1,072 58	2,490 41	563 46	171 94	252 30	2,528 59	721 82	433 50	399 30	412 65	930 44	1,287 16	5,868 35	288 89	...	17,461 89
May 1, "	378 42	409 14	56 42	66 00	11 29	299 28	43 82	...	...	235 40	46 87	343 94	768 65	75 97	...	2,755 20
June 1, "	921 34	615 69	263 68	168 44	167 94	1,148 11	1,067 91	82 00	156 10	297 13	531 42	565 66	1,425 32	283 15	...	7,573 89
July 1, "	946 24	646 45	431 27	637 69	322 31	2,063 86	802 95	73 76	71 00	391 83	371 31	839 99	209 64	254 33	\$67 65	8,020 20
Aug. 1, "	1,115 33	1,173 27	425 77	182 96	240 10	1,283 38	579 85	233 50	315 50	441 98	431 16	576 13	6 36	706 97	440 74	8,153 92
Sept. 1, "	1,343 20	877 51	364 09	193 33	743 82	1,134 44	1,921 84	105 50	111 25	482 77	490 06	650 57	8 55	648 61	571 69	9,647 23
Oct. 1, "	1,021 01	469 18	337 22	205 28	397 50	1,327 18	1,273 68	133 25	65 75	274 63	333 16	509 53	...	601 90	326 43	7,325 70
Nov. 1, "	1,138 32	2,580 67	592 56	310 00	638 21	1,521 08	1,362 67	356 53	146 47	406 46	433 04	793 38	13 50	276 70	844 50	10,983 74
Dec. 1, "	1,073 14	5,314 22	496 51	472 09	346 60	1,861 72	890 26	134 26	116 20	405 18	485 41	608 87	244 14	166 80	370 38	12,968 77
Jan. 31, 1892	2,000 15	7,561 66	742 32	361 00	872 85	4,411 14	1,654 35	121 58	177 50	782 92	873 52	894 15	3,476 79	...	774 66	24,724 59
Totals	\$15,543 28	\$23,806 23	\$6,439 38	\$3,705 51	\$4,541 21	\$20,411 17	\$12,348 82	\$2,176 10	\$1,767 18	\$4,925 12	\$6,298 53	\$6,160 14	\$17,467 38	\$5,063 60	\$2,896 05	\$152,334 50

TABLE VII.

Table of Rainfall at Chestnut-Hill Reservoir for Year ending  
Dec. 31, 1891.

DATE.	Inches.	Snow or Rain.	Duration.	DATE.	Inches.	Snow or Rain.	Duration.
Jan. 1	1.56	Snow and Rain.	8.30 a.m. to 7.45 a.m.	Mar. 3	1.77	Snow.	7.30 a.m. to 11.30 p.m.
" 2				" 4			
" 3				" 9	0.77	Rain.	10.00. a.m. to 4.00 a.m.
" 5	0.86	Snow.	5.30 a.m. to 10.30 p.m.	" 10			
" 11	1.06	Rain.	12.30 p.m. to 9.30 a.m.	" 12	0.83	"	6.00 p.m. to 10.00 p.m.
" 12				" 13			
" 14	0.03	Snow.	5.00 a.m. to 7.30 a.m.	" 19	0.08	Snow.	6.30 a.m. to 6.00 p.m.
" 17	1.72	Snow and Rain.	8.10 a.m. to 6.30 p.m.	" 20	2.18	Rain.	5.15 p.m. to 6.00 p.m.
" 18				" 21			
" 22	1.09	Rain.	6.00 a.m. to 6.00 p.m.	" 22			
" 25	0.76	Snow.	5.30 a.m. to 2.00 p.m.	Total.	5.63		
" 29	0.37	Snow and Rain.	4.00 a.m. to 10.30 p.m.				
" 31	0.06	Rain.	7.30 p.m. to midnight.	Apr. 2	1.83	Rain.	8.00 p.m. to 1.00 a.m.
Total.	6.98			" 3			
				" 4	0.83	"	7.00 a.m. to 6.00 a.m.
Feb. 1	0.29	Rain.	Midnight, Jan. 31, to 11.00 a.m.	" 11			
" 3	0.52	"	10.15 a.m. to 6.30 p.m.	" 12	0.58	"	1.45 a.m. to 10.00 a.m.
" 6	0.20	Snow and Rain.	6.50 a.m. to 5.00 p.m.	" 15			
" 7	0.78	Snow.	6.10 p.m. to 6.30 p.m.	" 18	0.16	"	8.00 p.m. to 1.00 a.m.
" 8				" 19			
" 9	0.80	Snow and Rain.	1.30 p.m. to 11.00 a.m.	" 25	0.09	Lt. Snow and Rain.	7.30 a.m. to 2.30 p.m.
" 10				Total.	2.98		
" 16	0.36	Rain.	1.20 a.m. to 8.30 p.m.				
" 17	0.24	"	3.00 a.m. to 12.30 p.m.	May 3	0.10	Rain.	10.30 a.m. to 5.30 p.m.
" 20	0.79	Snow and Rain.	9.45 a.m. to 7.15 a.m.	" 15	1.43	"	10.00 p.m. to 3.00 a.m.
" 21				" 16			
" 22				" 17	0.10	"	3.40 p.m. to 7.45 p.m.
" 25	1.20	Rain and Snow.	4.30 p.m. to 9.30 a.m.	" 28			
" 26				" 29	0.42	"	4.00 a.m. to 9.00 p.m.
" 27	0.12	Snow.	6.45 p.m. to 9.45 p.m.	Total.	2.06		
" 28							
Total.	5.29			June 2	0.46	Rain.	6.00 p.m. to 9.00 p.m.

Table of Rainfall at Chestnut-Hill Reservoir.—*Continued.*

DATE.	Inches.	Snow or Rain.	Duration.	DATE.	Inches.	Snow or Rain.	Duration.
June 3	0.42	Rain.	10.00 p.m. to 4.00 a.m.	Aug. 27	1.17	Rain.	1.00 p.m. to 10.30 p.m.
" 4				" 28			
" 17	1.15	Showers and Mist.	12.30 p.m. to 9.30 p.m.	" 30	0.50	"	5.30 a.m. to midnight.
" 18				" 31			
" 19							
" 20				Total.	4.02		
" 21	1.75	Rain.	9.30 p.m. to 3.30 p.m.	Sept. 1	0.02	Mist.	Midnight, Aug. 31, to 9.45 a.m.
" 22				" 5	2.83	Rain.	10.30 a.m. to 6.00 p.m.
" 26	0.23	Shower.	4.20 p.m. to 4.50 p.m.	" 6			
" 29	0.03	"	2.30 a.m. to 3.00 a.m.	" 7	0.10	Mist.	9.30 p.m. to 2.30 a.m.
" 30				" 13			
Total.	4.04			" 14	0.12	Showers.	7.00 p.m. to 11.30 p.m.
July 4	0.20	Shower.	4.00 a.m. to 6.00 a.m.	Total	3.07		
" 7	0.56	Rain.	1.30 p.m. to 5.30 a.m.	Oct. 5	0.07	Rain.	6.30 a.m. to 11.50 a.m.
" 8				" 7	2.45	"	6.20 p.m. to 7.00 a.m.
" 15	0.07	Showers.	7.30 p.m. to 10.30 p.m.	" 8			
" 18	0.30	Rain.	5.30 p.m. to 3.00 a.m.	" 11	0.02	Showers.	2.30 p.m. to 4.30 p.m.
" 19				" 13	1.83	Rain.	4.00 p.m. to 7.00 a.m.
" 24	0.71	"	9.00 a.m. to 4.30 p.m.	" 14			
" 28	0.75	"	9.00 p.m. to 4.00 p.m.	" 15	0.04	Shower.	1.00 p.m. to 3.00 p.m.
" 29				" 20	1.04	Rain.	7.00 a.m. to 3.30 p.m.
" 30	0.85	"	8.30 p.m. to 2.00 a.m.	" 22	0.62	Rain and Snow.	4.00 p.m. to 11.00 a.m.
" 31				" 23			
Total.	3.44			" 27	0.13	Rain.	7.15 a.m. to 6.30 p.m.
Aug. 1	0.16	Rain.	9.30 p.m. to 1.00 a.m.	Total.	5.70		
" 2				Nov. 11	0.32	Rain.	11.45 a.m. to 6.30 p.m.
" 6	0.38	"	1.00 a.m. to 7.30 a.m.	" 16	0.93	"	6.30 p.m. to 2.00 a.m.
" 7	0.26	Showers.	6.20 p.m. to 11.15 p.m.	" 17			
" 12	0.32	Thunder showers.	2.45 p.m. to 3.30 p.m.	" 18			
" 15	0.60	Rain.	9.15 a.m. to 1.00 a.m.	" 23	0.23	Showers.	6.30 a.m. to 9.30 p.m.
" 16							
" 21	0.63	"	10.45 p.m. to 9.30 a.m.				
" 22							

**Table of Rainfall at Chestnut-Hill Reservoir. — *Concluded.***

DATE.	Inches.	Snow or Rain.	Duration.	DATE.	Inches.	Snow or Rain.	Duration.
Nov. 26	1.19	Rain.	6.00 p.m. to 4.00 a.m.	Dec. 24	0.65	Rain.	9.50 a.m. to 12.30 a.m.
" 27				" 25			
" 28	0.03	Mists.	5.30 a.m. to 6.30 a.m.	" 26	0.28	"	3.30 p.m. to 10.30 p.m.
				" 29	1.21	"	8.15 p.m. to 1.00 p.m.
				" 30			
Total.	2.70			Total.	3.73		

Dec. 4	0.30	Rain.	7.00 p.m. to 10.15 a.m.
" 7	0.40	"	3.30 a.m. to 3.00 p.m.
" 15	0.52	Snow and Rain.	4.30 a.m. to 9.00 a.m.
" 16			
" 23	0.31	Rain.	2.00 a.m. to 12.30 p.m.

Total rainfall for year, 49.63 inches.			
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## REPORT OF THE ENGINEER.

CITY OF BOSTON,  
ENGINEERING DEPARTMENT,  
50 CITY HALL, February 1, 1892.

MR. ROBERT GRANT, *Chairman Boston Water Board* :

SIR : In accordance with the requirements of the Revised Ordinances, I respectfully submit the following report on the condition of the Water-Works.

## SOURCES OF SUPPLY.

The rainfall upon the water-sheds during the past year varied but little from the average amount, but less than the usual proportion fell during the summer and fall months, consequently the storage in the reservoirs began to be reduced in June and July, and steadily decreased until the latter part of December.

The rainfall and quantities collected on the several water-sheds were as follows :

	Sudbury.	Cochituate.	Mystic.
Rainfall in inches .	49.52	46.42	47.40
Rainfall collected, inches . . . .	27.612	32.07	28.60
Daily average yield of water - shed, gallons . . .	98,900,000	28,800,000	36,600,000

The quality of the water from all the supplies has been comparatively good.

The fluctuations in the amounts of water in the different lakes and reservoirs are shown graphically by an appended diagram.

The condition of the different reservoirs during the year is given below :

*Reservoir No. 1.* — Water was wasting at the dam from January 1 to July 2, with the exception of five days in May, after the stop-planks were placed on the dam, and during five

days in June. No water wasted over the dam after July 2, and only the one and one-half million gallons per day was allowed to flow through the waste-gates, as required by law.

The dam is in good condition.

*Reservoir No. 2.* — Water was flowing over the dam or through the gates of Dam 2 until May 9, when the flash-boards were placed in position. The reservoir filled to the top of the flash-boards four days later, but water was drawn from this reservoir to supply the city on the 14th, and the surface immediately fell below the top of the flash-board, and the reservoir did not fill again during the year. The lowest point reached was on August 19, when the surface was 9.48 feet below the top of the flash-boards.

The dam at Reservoir 2 is in good condition.

*Reservoir No. 3.* — This reservoir was full until the middle of August, except during February and March, when it was drawn down in anticipation of the usual large spring flow. On August 19 this reservoir was drawn from to supply the city, and its surface gradually fell until November 24, when it was at grade 162.32, or 12.92 feet below the crest of the overflow.

On Jan. 1, 1892, it had risen to 167.19, or 8.05 feet below the crest.

The dam at Reservoir 3 is in good condition.

*Reservoir No. 4.* — This reservoir was kept full until July 15, with the exception that it was lowered as usual in the spring.

On July 15 the outlet gate was partially opened to furnish a portion of the city's supply, and the reservoir gradually fell until September 26, when the gate was closed. The height at that date was 202.91, or 12 30 feet below the top of the flash-boards. Since that date no water has been drawn from the reservoir, and its surface has gradually risen. On January 1 its height was 207.85, or 6.36 feet below the crest of the dam.

The dam of Reservoir No. 4 is in good condition.

*Farm Pond.* — The surface of the pond has been kept at an average height of 149.12.

The conduit through the pond has been in use all the year, no water having been drawn from the pond to supply the city.

The Framingham Water Company has pumped 80,500,000 gallons from the pond, an average of 220,500 gallons per day.

*Lake Cochituate.* — Water was wasted from the outlet dam from January 2 to 7, and from January 12 to April 25.

The surface of the lake began to fall on April 26, and continued to fall slowly and with great regularity until



November 26, when it was at grade 126.44, or 7.92 feet below high-water, the lowest point during the year.

The lake began to fill during the latter part of December, and on January 1 it had risen to grade 127.34, or 7.02 feet below high-water line.

The heights of water in the various storage reservoirs on the first day of each month are given below :

	RESERVOIRS.				FARM POND.	LAKE COCHITU- ATE.
	No. 1.	No. 2.	No. 3.	No. 4.		
	Top of Flash- boards.	Top of Flash- boards.	Crest of Dam.	Top of Flash- boards.		
	159.29	167.12	175.24	215.21	149.25	134.36
January 1, 1891. . . . .	157.66	165.96	175.32	214.41	149.36	132.49
February 1, " . . . . .	158.23	166.13	175.36	210.11	149.17	133.14
March 1, " . . . . .	158.27	166.20	175.45	210.77	149.90	132.75
April 1, " . . . . .	158.07	166.27	175.42	211.97	148.97	134.14
May 1, " . . . . .	157.77	166.00	175.24	214.53	149.39	134.12
June 1, " . . . . .	159.37	166.10	175.41	214.74	149.26	133.20
July 1, " . . . . .	159.37	165.37	175.36	214.81	149.09	132.22
August 1, " . . . . .	157.68	160.36	175.31	211.56	148.89	130.71
September 1, " . . . . .	157.89	159.33	174.03	206.21	148.93	129.48
October 1, " . . . . .	157.59	158.93	172.12	202.91	148.79	126.30
November 1, " . . . . .	157.25	159.08	167.70	203.97	148.81	127.06
December 1, " . . . . .	157.00	160.80	163.50	205.46	148.80	126.69
January 1, 1892. . . . .	157.20	153.55	167.19	207.85	148.99	127.34

Water has been drawn from the different reservoirs as follows :

RESERVOIR No. 1.  
July 3 to 6, inclusive.

RESERVOIRS NOS. 1 AND 2.  
July 2.

RESERVOIR No. 2.

May 17 to 24.	June 30 to July 1.
May 28 to June 7.	July 7 to Aug. 18.
June 9 to 10.	Sept. 15 to 24.
June 16 to 18.	Dec. 20 to 31.

## RESERVOIRS NOS. 2 AND 3.

Jan. 1 to 4.	April 8 to 11.
Jan. 7 to 11.	April 16 to 18.
Jan. 15 to 18.	April 20 to 26.
Jan. 22 to 26.	April 30 to May 3.
Jan. 29 to Feb. 1.	May 7 to 9.
Feb. 5 to 8.	May 14 to 16.
Feb. 12 to 15.	May 25 to 27.
Feb. 19 to 23.	June 11 to 14.
Feb. 27 to March 1.	Aug. 19 to Sept. 14.
March 5 to 8.	Sept. 25 to Oct. 26.
March 12 to 15.	Oct. 28 to Nov. 16.
March 19 to 22.	Nov. 19 to 29.
March 26 to 28.	Dec. 1 to 19.
April 1 to 4.	

## AQUEDUCTS AND DISTRIBUTING RESERVOIRS.

The Sudbury-river conduit has been used 298 days, and the Cochituate has been used 352 days. The Sudbury conduit has delivered 8,306,600,000 gallons into Chestnut-hill and Brookline reservoirs, equal to a daily supply of 22,760,000 gallons; the Cochituate aqueduct has delivered 5,508,180,000 gallons, or 15,091,000 gallons per day.

In the Cochituate aqueduct a nearly uniform depth of six and one-half feet was maintained until the middle of October, when the surface of the lake had fallen so low that this depth could not be maintained.

During the balance of the year the depth in the aqueduct closely followed the depth in the lake above the bottom of the aqueduct, and at one time it was only five feet four inches.

The rate of flow in the Sudbury conduit was varied almost daily to maintain the desired height in the distributing reservoirs. Both conduits were cleaned as usual during the year.

On April 19 one of the 40-inch siphon-pipes of the Cochituate aqueduct at Newton Lower Falls was split by the weight of gravel-filling that had been deposited over the pipes in building a new street across the location of the siphon. The water was shut off and the split pipe replaced before any damage had been done.

The Chestnut-hill, Brookline, Fisher-hill, Parker-hill, and East Boston reservoirs, and the Breed's Island water-tower, are in good condition. I recommend that the elm-trees at the base of the Chestnut-hill reservoir dam be removed. The inside of the iron water-tower on Bellevue hill should be painted this year.

The South Boston reservoir has not been in daily use for many years, but is kept partially full of water for use in special emergencies, and for this reason is still of value to the water-supply service. A check-valve should be placed in the high-service connection with this reservoir, to automatically supply the fire-hydrants within the high-service district of South Boston in case of serious fires.

#### HIGH-SERVICE PUMPING-STATIONS.

At Chestnut hill the pumping-engines and boilers are in excellent condition.

A permanent apparatus for weighing the feed-water has been placed in the boiler-room, and the accuracy of the feed-water meters is now easily ascertained from time to time, so that corrections can be made in calculating the efficiency of the boilers.

The table on page 108 shows in detail the work done by the pumping-engines and boilers during the year.

Engine No. 1 was used	3,419½	
hours, pumping	.	1,264,475,610 gallons.
Engine No. 2 was used	3,768½	
hours, pumping	.	1,386,688,800 "
Total amount pumped	.	2,651,164,410 "
Total amount coal consumed	.	2,910,751 pounds.
Percentage ashes and clinkers	.	8.5
Average lift in feet	.	124.6
Quantity pumped per lb. of coal	.	910.8 gallons.
Daily average amount pumped	.	7,263,500 "

The amount pumped is an increase of 11.9 per cent. over that of 1890.

The same boiler supplied steam for pumping, and for heating and lighting the pumping-station and other buildings near the station.

#### COST OF PUMPING.

Salaries	.	.	.	.	.	.	.	\$9,590 40
Fuel	.	.	.	.	.	.	.	6,558 28
Repairs	.	.	.	.	.	.	.	701 93
Oil, waste, and packing	.	.	.	.	.	.	.	534 51
Small supplies	.	.	.	.	.	.	.	257 18
Total	.	.	.	.	.	.	.	<hr/> \$17,642 30

Cost per million gallons raised one foot high	.	\$0.053
Cost per million gallons pumped to reservoir	.	6.65

At the West Roxbury pumping-station 24,108,000 gallons have been pumped, equivalent to a daily average of 66,000 gallons, — an increase of 68.4 per cent. over that pumped in 1890.

At the East Boston pumping-station an average of 13,500 gallons per day has been pumped into the Breed's Island water-tower.

Water was pumped into the East Boston reservoir only on two days in January, one day in February, and two days in March, as the reservoir could be filled during the night from the low-service mains during the balance of the year.

### MYSTIC LAKE.

Water was wasted over the dam almost constantly until June 9, and again from June 22 to June 28. From this date the surface of the lake gradually fell until it was 7.67 feet below high-water on November 26, or only 3.50 feet above the bottom of the conduit. This was only about 4 inches above the point where the supply for the pumping-station could not be maintained by gravity.

Early in October the centrifugal pumps were placed in position at the lake to raise the water into the conduit, but fortunately it was not necessary to use them.

Advantage was taken of the low stage of the water to repoint the masonry at the overflow.

On January 1, 1892, the water in the lake had risen to grade 2.32, or 4.68 feet below high-water, and water was wasting over the dam on January 15.

The table on page 106 shows the yield of the water-shed. The rainfall there recorded is an average from two gauges, one located at the lake and one in Winchester.

The record of the latter gauge was kept by Mr. L. R. Symmes, formerly assistant superintendent, gratuitously until his death, last February. Since his death the gauge has been maintained and records kept by Miss A. F. Symmes.

### MYSTIC VALLEY SEWER.

The pump was run 356 days during the year of 1891, working  $6,391\frac{1}{2}$  hours, and has pumped 119,404,000 gallons of sewage, or an average of 335,400 gallons per day of pumping. The amount pumped is only one-fourth of one per cent. greater than in 1890.

The total amount of sulphate of alumina used during the year was 303,780 pounds, and 173 tons of coal were used in pumping.

### MYSTIC CONDUIT AND RESERVOIR.

The conduit was cleaned twice during the year, and is in good condition.

New sills and grooves for the screens should be placed in the screen-chamber, and the roof of the chamber should be raised to facilitate the changing of the screens. A new gate should be placed on the blow-off pipe, to exclude the tide-water.

The reservoir has not been cleaned for several years, otherwise it is in good condition.

### MYSTIC PUMPING-STATION.

The pumps have received quite extensive repairs, and are in good condition.

The three older boilers should have new fronts, to correspond with those on the new boilers; a sluice-gate should be placed in the pump-well of Engine No. 3, as under the present condition any accident to the foot-valve of this pump would necessitate the stopping of the whole plant. A duplicate dynamo for lighting the building should be procured, and it would be an economical measure to build a new chimney of larger capacity if the plant is to be continued in service.

The table on page 109 shows in detail the work done by the pumping-engine during the year.

Engine No. 1 was in use 884	
hours, pumping . . . . .	145,186,500 gallons.
Engine No. 2 was in use 1,774 $\frac{1}{4}$	
hours, pumping . . . . .	346,862,000 "
Engine No. 3 was in use 8,352 $\frac{1}{2}$	
hours, pumping . . . . .	2,812,902,400 "
Total amount pumped . . . . .	3,304,951,000 "
Total amount coal consumed . . . . .	6,988,500 pounds.
Percentage ashes and clinkers . . . . .	10.2
Average lift in feet . . . . .	148.02
Quantity pumped per lb. of coal . . . . .	472.9 gallons.
Average duty of engine per 100	
lbs. of coal, no deductions . . . . .	58,380,500 ft.-lbs.
Daily average amount pumped . . . . .	9,054,700 gallons.

The amount pumped is an increase of 9.1 per cent. over that of 1890.

## COST OF PUMPING.

Salaries . . . . .	\$9,628 07
Fuel . . . . .	13,946 42
Repairs . . . . .	954 69
Oil, waste, and packing . . . . .	983 96
Small supplies . . . . .	444 89

Total . . . . . \$25,958 03

Cost per million gallons raised one foot high . \$0.053

Cost per million gallons pumped to reservoir . 7.85

## CONSUMPTION.

The daily average consumption from the combined works, and the consumption, compared with that of 1890, was as follows :

	COCHITUATE WORKS.		MYSTIC WORKS.		COMBINED SUPPLIES.	
	Consumption in Gallons.	Percentage of Consumption of 1890.	Consumption in Gallons.	Percentage of Consumption of 1890.	Consumption in Gallons.	Percentage of Consumption of 1890.
January . . . . .	37,230,100	110.5	9,389,300	114.7	46,619,400	111.3
February . . . . .	37,280,700	112.9	9,466,900	114.1	46,747,600	113.1
March . . . . .	36,533,400	115.2	8,811,000	109.4	44,344,400	114.0
April . . . . .	35,751,600	117.3	8,046,800	107.5	43,797,400	115.4
May . . . . .	36,580,700	116.6	8,841,300	113.1	45,421,900	113.9
June . . . . .	37,801,900	114.5	9,478,400	112.9	47,280,300	114.2
July . . . . .	39,062,500	106.4	9,581,700	101.3	48,644,200	105.4
August . . . . .	39,460,400	108.7	9,122,300	102.1	48,582,800	107.4
September . . . . .	40,677,700	112.5	9,128,700	108.2	49,806,400	111.7
October . . . . .	38,845,900	116.3	9,259,100	113.9	48,104,800	116.8
November . . . . .	36,640,800	111.2	8,585,200	112.9	45,226,000	111.5
December . . . . .	37,342,500	97.4	8,960,800	94.6	46,303,100	96.9
Average . . . . .	37,686,900	111.3	9,065,200	109.1	46,742,100	110.3

The daily average consumption per head of population was as follows :

Sudbury and Cochituate supply,	89.3 gallons.
Mystic supply . . . . .	74.7 “
Combined supplies . . . . .	86.0 “

The above figures show an increase of 11.3 per cent. in the consumption supplied from the Sudbury and Cochituate works from that of the previous year; of 9.1 per cent. in the consumption supplied from the Mystic works; and of 10.8 per cent. increase in the consumption supplied by the combined supplies.

#### DEACON METERS.

There are now in use 81 meters, — 74 on the Cochituate system and 7 on the Mystic system, — and the territory covered by the meters is divided into 176 sections; 8 sections were not tested during the past year.

The quantity supplied to the entire residential portion of Boston can now be tested by the meters, excepting a portion of West Roxbury and that portion of the Back Bay district bounded by Boylston street, Parker street, and the Boston & Providence Railroad.

During the coming year two meters should be placed in the latter territory; but the West Roxbury district cannot be advantageously tested until the district is more densely populated.

On the Mystic system Charlestown is practically covered by meters; one meter covers a small portion of Somerville, and one about one-quarter of Chelsea. Everett has no meters.

The estimated population supplied with water, and the population that is covered by Deacon meters in the different sections of the city, is as follows:

SECTION.	Estimated Population.	Population on Meters.
City proper . . . .	164,875	132,000
Roxbury . . . .	104,000	84,000
West Roxbury . . . .	28,510	14,300
Dorchester . . . .	34,025	27,500
Brighton . . . .	13,700	5,400
South Boston . . . .	76,535	65,000
East Boston . . . .	41,375	32,000
Charlestown . . . .	45,930	32,500
Chelsea . . . .	33,775	9,300
Somerville . . . .	46,675	4,400

The consolidated results of the readings of the various sections is shown in the following table, in which is given the final reading of 1890, the first and last readings of this year, the differences between the first and second readings of this year, and the differences between the last readings of this year and those of 1890.

**Cochituate System.**

SECTION.	Population.	1890. 2d Reading.		1891. 1st Reading.		1891. 2d Reading.	
		Daily con.	Night rate.	Daily con.	Night rate.	Daily con.	Night rate.
City proper . . . . .	132,000	52.5	29.4	56.9	35.3	61.7	37.5
Roxbury . . . . .	84,000	49.2	28.8	53.1	36.4	53.5	36.8
West Roxbury . . . . .	14,300	53.3	23.1	50.6	23.1	. . . . .	. . . . .
Dorchester . . . . .	27,500	49.0	25.8	52.8	25.2	49.9	27.7
Brighton . . . . .	5,400	52.1	24.0	61.3	27.1	. . . . .	. . . . .
South Boston . . . . .	65,000	40.5	24.0	41.3	25.6	47.3	26.6
East Boston . . . . .	32,000	34.5	20.2	35.7	24.2	39.9	25.6
	360,200	47.5	27.6	52.1	31.8	53.7	33.2

**Mystic System.**

Charlestown . . . . .	32,500	33.8	17.8	40.6	24.0	41.5	25.2
Somerville . . . . .	4,400	43.2	26.2	32.1	48.5	78.3	58.8
Chelsea . . . . .	9,300	37.2	24.9	44.4	29.5	43.1	32.3
	46,200	35.3	20.0	45.1	27.3	45.2	29.6

**ADDITIONAL SUPPLY.**

At Dam No. 6 the excavation for the core-wall has been completed, the wall built in the trench, and the trench re-filled. This work was difficult; the building of the core-wall could not be done at a rapid rate, great care being necessary in removing the bracing and in doing the refilling.

The embankment and core-wall of the dam have been built to about five feet above the elevation of the lowest part of the valley, and the work is now in such condition that comparatively rapid progress can be made, all of the difficult work having been done.

The work of stripping the basin and the shallow-flowage work is well advanced. It will probably be completed this year.

The surveys of Cedar swamp, and the plans for its improvement, are practically completed. At Whitehall pond surveys and borings are being made for a new dam at the outlet; a dredging plant has been built, and the work of



removing mud and stumps from the bottom of the pond can be commenced in the spring.

On the Stony-brook branch of the Sudbury, surveys and borings are being made for Basins 5, 7, and 9, the construction of which must soon be commenced, as the increased consumption of water, due to the growth of the city, will keep pace with the increased capacity to be added by the completion of Basin No. 6.

For particulars see the following report of Desmond Fitzgerald, Resident Engineer :

BOSTON WATER-WORKS, OFFICE OF ADDITIONAL SUPPLY,  
SOUTH FRAMINGHAM, MASS., Feb. 1, 1892.

WILLIAM JACKSON, Esq., *City Engineer* :

SIR : I submit herewith a brief report of engineering work accomplished during the past year by the "Additional Supply" force.

The name of Basin 5 has been changed to Basin 6, in order to bring all the even numbers on the Sudbury branch of the supply. Although the core-wall of this basin was heavily covered with hay, the frost got into the trench in January, 1891, and attacked the concrete, even at the bottom of the trench, 30 feet deep, necessitating the laying of steam-pipes. January 9 a contract was made with Charles H. Hale for delivering filling on the dam. April 6 the trench was uncovered and pumped out. May 5 the work of depositing concrete was begun. June 3 the core-wall was completed, and the back-filling begun, the sheeting being cut off in sections about 2 feet high, in order that the back-filling might be thoroughly rammed and bonded to the sides of the trench. On September 2 the back-filling reached the surface of the ground, and the embankment was begun. September 29 the contractor suspended operations, and on October 9 the work was continued by the bondsman, Mr. Barnabas Clark. The embankment has been built to the height of five feet above the meadow. A gap 20 feet wide was left in the core-wall to pass freshets during the winter and spring.

The gate-house for the 48-inch pipe has been built and the pipe laid on rock foundation and covered with brickwork. It discharges into the wasteway, the lower section of which has been built. The upper gate-house has been begun. All gate-house, pipe, and core-wall trenches have been back-filled.

May 25 a contract was made with Charles H. Hale for building the lower section of the wasteway, 220 feet long, and on September 24 the work was completed.

July 14 four sections for stripping the bottom of the basin were let, and about two-fifths of this work has been done in a satisfactory and economical manner.

During the latter part of the summer a railroad was built connecting the Boston & Albany R.R. with the basin. After its completion about 25,000 cubic yards of loam were hauled to the Muddy-river Improvement on behalf of the town of Brookline.

The principal specifications and contracts prepared during the year were those for the stripping and shallow flowage, the railroad, and the lower section of the wasteway. The following table shows the work accomplished thus far at the new basin :

#### WORK DONE AT BASIN 6 DURING 1890 AND 1891.

	1890.	1891.
Clearing . . . . .	19 acres.	23 acres.
Stripping earth (city contract) . . . . .	47,891 cu. yds.	50,940 cu. yds.
Stripping earth (contract), . . . . .	0 "	175,000 "
Stripping rock . . . . .	2,125 "	536 "
Collecting stone . . . . .	15,953 "	4,423 "
Trench excavation, earth . . . . .	19,450 "	4,641 "
Trench excavation, rock . . . . .	1,018 "	1,051 "
Crushing stone . . . . .	6,857 "	2,994 "
Concrete . . . . .	7,179 "	2,498 "
Plaster . . . . .	2,174 "	2,132 "
Back-filling . . . . .	507 "	10,875 "
Embankment . . . . .	5,362 "	15,928 "
Screening sand and gravel, . . . . .	4,221 "	2,751 "
Rubble-stone delivered . . . . .	19 "	466 "
Stone-masonry . . . . .	0 "	534 "
Brick-masonry . . . . .	35 "	291 "
Delivering clay (city labor), . . . . .	0 "	593 "
Laying 48-inch pipe . . . . .	0 lin. ft.	414 lin. ft.
Laying 36-inch pipe . . . . .	0 "	12 "
Loaming embankment . . . . .	0 c. y.	322 c. y.
Wasteway . . . . .	0 lin. ft.	220 lin. ft.

Surveys have been continued on various portions of the water-shed. The work of lining the Beacon-street tunnel has been prosecuted from Dec. 30, 1890, to May 14, 1891. The cost of laying the concrete was \$13.14 this year against \$15.02 last year.

Yours very truly,

(Signed)

DESMOND FITZGERALD,

*Resident Engineer.*

## IN GENERAL.

The sewerage system of the city of Marlboro' is well advanced, the main sewer is completed, the filtration areas are prepared, and a considerable portion of the service-sewers are laid. The system will be in operation early this year, and it will greatly improve the quality of the water collected by the Stony-brook branch of the Sudbury river.

The sewerage system of the town of Westboro' is under construction, and will probably be in operation in the near future.

Work has been begun upon the foundations of the new pumping-engine at Chestnut-hill pumping-station, and the plans for the engine are nearly completed.

The daily amount pumped at this station increases about 12 per cent. each year, and will exceed the nominal capacity of one pumping-engine next year; consequently the work on the new engine must be pushed as rapidly as possible.

At the Mystic station the pumps are duplicated to a capacity of 10,000,000 gallons per day, and at the present rate of increase the daily average consumption in 1893 will exceed this amount.

In this connection I wish to call attention to the fact that the total capacity of the Mystic system is but 7,000,000 gallons daily in a dry year, and to recommend that the dependant municipalities make some provision to meet the inevitable deficiency which must sooner or later occur.

Thirty-seven contracts for rock excavation have been made during the year. Two hundred and ninety-nine petitions for main-pipe extensions have been reported upon in regard to grade of street, size of pipe, and cost of laying.

The pipe laid has been measured, the gates and hydrants located, and are being plotted on the plans.

Thirty-five profiles of unaccepted streets have been made, and grades given for grading the streets and laying pipes where it was necessary.

The records from the four pumping-stations, the lakes, reservoirs, the Mystic sewer, and the returns from pipe foundries, etc., have been carefully kept.

Appended to this report will be found the usual tables of rainfall, consumption, yield of water-sheds, etc.

WILLIAM JACKSON,  
*City Engineer.*



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# WATER-SUPPLY DEPARTMENT.

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*Daily Average Consumption of Water, in Gallons, from the Cochituate and Mystic Works.*

COCHITUATE WORKS.												MYSTIC WORKS.											
MONTH.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1895.	1896.	1897.	1898.	1899.	1900.	1901.									
January . . . .	26,711,900	28,561,900	32,687,600	40,485,700	30,172,000	33,680,000	37,220,100	7,855,400	8,610,300	10,488,600	11,107,100	7,769,500	8,187,900	9,389,300									
February . . . .	31,847,400	28,291,100	31,224,300	43,105,000	35,855,200	33,030,700	37,290,700	10,019,500	9,275,700	9,346,700	11,620,900	9,078,600	8,299,700	9,466,900									
March . . . . .	27,697,200	26,886,800	28,124,100	36,463,400	32,180,000	30,844,400	35,533,400	8,487,500	7,780,000	8,175,000	9,242,000	7,537,800	8,055,800	8,811,000									
April . . . . .	22,720,450	23,470,400	25,591,500	31,473,800	30,814,500	30,446,600	35,751,600	6,042,600	6,636,500	6,933,800	7,276,700	7,185,700	7,481,600	8,045,800									
May . . . . .	22,108,400	24,680,100	27,925,000	30,801,000	32,719,500	31,381,200	38,580,700	5,605,700	6,446,000	6,916,300	6,932,300	7,683,600	7,488,400	8,841,300									
June . . . . .	27,214,800	26,574,900	30,069,000	31,026,100	33,377,900	33,022,700	37,801,900	6,594,200	6,941,100	7,159,800	7,915,200	8,017,700	8,396,000	9,478,400									
July . . . . .	26,606,200	28,987,500	30,469,700	32,014,100	31,870,300	36,701,100	39,062,600	6,513,300	7,437,500	7,250,000	8,267,500	8,315,600	9,463,300	9,561,700									
August . . . . .	24,686,400	24,770,600	30,063,100	32,432,700	31,403,200	36,316,000	39,460,400	6,047,600	7,166,800	6,871,900	7,859,100	8,113,200	8,982,200	9,122,300									
September . . .	26,493,600	25,835,600	31,946,600	31,836,500	31,722,800	36,165,800	40,677,700	5,931,900	7,583,200	6,868,600	7,266,300	7,966,000	8,436,700	9,128,700									
October . . . . .	24,945,500	26,713,100	30,562,700	29,110,800	31,702,200	33,429,800	38,845,600	6,914,900	6,552,000	6,436,600	7,096,400	7,627,500	7,784,100	9,259,100									
November . . .	21,942,750	25,036,200	28,062,000	28,590,900	31,532,400	32,955,100	36,640,800	5,710,300	6,546,000	7,361,200	6,990,800	7,316,700	7,601,300	8,685,200									
December . . . .	24,724,900	29,706,800	31,511,500	32,686,200	31,829,000	38,534,100	37,342,500	6,356,700	8,043,500	7,835,300	7,918,600	7,473,200	9,448,300	8,960,600									
early average .	25,607,200	26,627,900	29,852,100	33,310,700	32,070,000	33,871,700	37,686,900	6,737,350	7,399,800	7,629,000	8,258,400	7,830,500	8,301,400	9,055,200									

*Diversion of Sudbury-River Water, 1883-91.*

MONTH.	1883.		1884.		1885.		1886.		1887.		1888.		1889.		1890.		1891.	
	To Lake Cochituate.	To Chestnut- Hill Res'r.	To Lake Cochituate.	To Chestnut- Hill Res'r.	To Lake Cochituate.	To Chestnut- Hill Res'r.	To Lake Cochituate.	To Chestnut- Hill Res'r.	To Lake Cochituate.	To Chestnut- Hill Res'r.	To Lake Cochituate.	To Chestnut- Hill Res'r.	To Lake Cochituate.	To Chestnut- Hill Res'r.	To Lake Cochituate.	To Chestnut- Hill Res'r.	To Lake Cochituate.	To Chestnut- Hill Res'r.
January . . . . .	Gallons. 733,400,000	Gallons. 697,000,000	Gallons. 697,000,000	Gallons. 473,900,000	Gallons. 602,200,000	Gallons. 835,400,000	Gallons. 484,500,000	Gallons. 518,600,000	Gallons. 602,200,000	Gallons. 835,400,000	Gallons. 484,500,000	Gallons. 518,600,000	Gallons. 602,200,000	Gallons. 835,400,000	Gallons. 484,500,000	Gallons. 518,600,000	Gallons. 602,200,000	Gallons. 835,400,000
February . . . . .	597,800,000	265,400,000	597,800,000	560,400,000	380,800,000	906,700,000	564,800,000	475,000,000	473,000,000	906,700,000	564,800,000	475,000,000	473,000,000	906,700,000	564,800,000	475,000,000	473,000,000	906,700,000
March . . . . .	17,200,000	312,500,000	312,500,000	495,900,000	467,400,000	601,400,000	584,500,000	498,600,000	456,700,000	601,400,000	584,500,000	498,600,000	456,700,000	601,400,000	584,500,000	498,600,000	456,700,000	601,400,000
April . . . . .	987,900,000	228,800,000	228,800,000	350,400,000	307,000,000	468,800,000	490,500,000	417,000,000	388,400,000	468,800,000	490,500,000	417,000,000	388,400,000	468,800,000	490,500,000	417,000,000	388,400,000	468,800,000
May . . . . .	260,000,000	268,400,000	268,400,000	308,500,000	344,700,000	566,300,000	613,700,000	536,300,000	444,200,000	566,300,000	613,700,000	536,300,000	444,200,000	566,300,000	613,700,000	536,300,000	444,200,000	566,300,000
June . . . . .	631,600,000	414,500,000	414,500,000	768,000,000	427,100,000	489,000,000	567,800,000	513,100,000	463,600,000	489,000,000	567,800,000	513,100,000	463,600,000	489,000,000	567,800,000	513,100,000	463,600,000	489,000,000
July . . . . .	764,300,000	430,100,000	430,100,000	424,600,000	534,500,000	528,300,000	534,000,000	664,100,000	387,500,000	528,300,000	534,000,000	664,100,000	387,500,000	528,300,000	534,000,000	664,100,000	387,500,000	528,300,000
August . . . . .	640,900,000	406,100,000	406,100,000	401,100,000	463,100,000	626,600,000	443,700,000	625,500,000	359,800,000	626,600,000	443,700,000	625,500,000	359,800,000	626,600,000	443,700,000	625,500,000	359,800,000	626,600,000
September . . . . .	467,100,000	442,200,000	442,200,000	386,100,000	414,700,000	577,300,000	475,500,000	604,400,000	577,300,000	581,600,000	475,500,000	604,400,000	577,300,000	581,600,000	475,500,000	604,400,000	577,300,000	581,600,000
October . . . . .	483,300,000	432,900,000	432,900,000	368,300,000	474,100,000	673,300,000	414,100,000	539,900,000	673,300,000	435,900,000	414,100,000	539,900,000	673,300,000	435,900,000	414,100,000	539,900,000	673,300,000	435,900,000
November . . . . .	580,800,000	363,900,000	363,900,000	297,600,000	381,800,000	607,100,000	454,600,000	526,000,000	607,100,000	410,900,000	454,600,000	526,000,000	607,100,000	410,900,000	454,600,000	526,000,000	607,100,000	410,900,000
December . . . . .	536,800,000	432,500,000	432,500,000	379,900,000	570,200,000	703,000,000	601,200,000	675,600,000	703,000,000	605,200,000	601,200,000	675,600,000	703,000,000	605,200,000	601,200,000	675,600,000	703,000,000	605,200,000
Totals . . . . .	1,245,100,000	7,209,900,000	7,209,900,000	5,224,700,000	5,297,600,000	6,124,100,000	283,400,000	6,596,000,000	6,124,100,000	7,224,700,000	283,400,000	6,596,000,000	6,124,100,000	7,224,700,000	283,400,000	6,596,000,000	6,124,100,000	7,224,700,000
Total div'rsion from Sud- bury river	8,452,000,000	6,110,000,000	6,110,000,000	5,224,700,000	5,297,600,000	6,124,100,000	6,383,900,000	6,596,000,000	6,124,100,000	7,224,700,000	6,383,900,000	6,596,000,000	6,124,100,000	7,224,700,000	6,383,900,000	6,596,000,000	6,124,100,000	7,224,700,000
Ave. an- nual diversion for whole year	23,164,400	16,695,000	16,695,000	14,814,200	14,431,800	16,775,400	17,435,300	18,071,200	16,775,400	19,730,800	17,435,300	18,071,200	16,775,400	19,730,800	17,435,300	18,071,200	16,775,400	19,730,800

# WATER-SUPPLY DEPARTMENT.

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Statement showing Amount of Water diverted from Sudbury River to Lake Cochituate and Chestnut-Hill Reservoir; Amount wasted; Amount of Flow in River; Percentage of Rainfall collected, etc., 1875 to 1891.

(Water-shed from 1875 to 1878, inclusive, = 77,764 sq. miles; in 1879 and 1880 = 78,238 sq. miles; and from 1881 to 1891, inclusive, = 76.2 sq. miles.

YEAR.	Amount of Water diverted to Lake Cochituate and Chestnut-Hill Reservoir.	Amount of Water used by Framingham Water Co.	Amount of Water wasted from River.	STORAGE.		Total amount of flow in River.	Daily average amount of flow in River.	Rainfall.	Rainfall collected.	Percentage of Rainfall collected.
				Gain.	Loss.					
	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Inches.	Inches.	Per cent.
1875 . . . .	2,555,800,000	..	24,971,600,000	66,300,000	..	27,563,700,000	76,569,200	46.490	20.418	44.38
1876 . . . .	2,528,300,000	..	29,942,300,000	..	160,700,000	32,309,900,000	86,278,400	49.583	23.908	48.24
1877 . . . .	1,894,350,000	..	32,438,300,000	112,100,000	..	34,444,750,000	94,369,200	44.018	25.487	57.90
1878 . . . .	3,422,100,000	..	37,125,200,000	654,700,000	..	41,202,000,000	112,882,200	57.931	30.487	52.83
1879 . . . .	3,749,200,000	..	20,817,500,000	962,200,000	..	25,528,900,000	69,942,200	41.419	18.775	45.33
1880 . . . .	6,230,200,000	..	11,280,000,000	..	968,600,000	16,661,600,000	42,250,300	38.177	12.182	31.91
1881 . . . .	8,845,300,000	..	17,279,000,000	751,700,000	..	23,876,000,000	73,633,900	44.169	20.565	46.56
1882 . . . .	7,735,200,000	..	16,273,900,000	..	352,600,000	23,656,600,000	64,812,300	39.394	18.102	45.95
1883 . . . .	8,485,000,000	..	7,251,900,000	..	1,086,400,000	14,692,500,000	40,656,200	32.780	11.188	34.13
1884 . . . .	6,110,600,000	..	23,228,900,000	1,744,600,000	..	31,084,100,000	84,929,200	47.135	23.784	50.46
1885 . . . .	6,224,700,000	61,800,000	19,878,800,000	..	446,900,000	24,718,400,000	67,721,600	43.545	18.916	43.44
1886 . . . .	6,266,600,000	76,600,000	23,023,000,000	1,464,500,000	..	29,831,700,000	81,730,700	46.065	22.825	49.55
1887 . . . .	6,124,100,000	87,500,000	25,334,500,000	117,400,000	..	31,663,500,000	86,749,300	42.705	24.227	56.73
1888 . . . .	7,224,700,000	61,500,000	39,940,500,000	390,600,000	..	46,717,300,000	127,642,900	57.465	36.749	62.31
1889 . . . .	6,363,900,000	59,500,000	31,550,400,000	..	2,800,000	37,971,000,000	104,030,100	49.96	20.056	58.17
1890 . . . .	6,566,000,000	74,500,000	28,667,100,000	..	57,400,000	35,290,200,000	96,638,100	53.00	26.998	50.94
1891 . . . .	8,306,600,000	80,500,000	28,799,600,000	..	1,100,800,000	36,085,900,000	98,865,500	49.52	27.612	55.76
Averages .	5,684,332,400	71,700,000	24,524,100,000	..	..	30,361,361,800	82,946,600	40.019	22.957	49.10



*Statement showing Amount of Water drawn from Lake Cochituate; Amount wasted; Amount of Rainfall collected in Lake; Amount received into Lake from Sudbury River; Percentage of Rainfall collected, etc., 1852 to 1891; Water-shed of Lake, 12,077 Acres.*

YEAR.	Amount of Water drawn from Lake.	Amount of Water wasted from Lake.	Amount received into Lake from Sudbury River.	STORAGE.		Total amount of Rainfall collected in Lake.	Daily average amount of Rainfall collected in Lake.	Rainfall.	Rainfall collected.	Percentage of Rainfall collected.
				Gain.	Loss.					
	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Inches.	Inches.	Per cent.
1852 <sup>1</sup>	2,974,042,800	4,020,566,900	.....	.....	261,380,000	6,733,249,700	19,390,900	47.93	20.61	43.
1853	3,117,939,500	3,166,417,500	.....	239,580,000	.....	6,523,937,000	17,873,800	55.73	19.51	35.
1854	3,614,230,000	4,187,733,000	.....	.....	217,800,000	7,684,163,000	20,776,500	43.15	23.87	53.
1855	3,776,399,500	No account kept	.....	.....	328,700,000	.....	.....	34.96	.....	.....
1856	4,409,787,600	"	.....	598,980,000	.....	.....	.....	40.80	.....	.....
1857	4,644,990,000	10,625,900,000	.....	32,670,000	.....	15,308,560,000	41,927,600	63.10	46.69	74.
1858	4,680,185,000	1,984,500,000	.....	.....	141,670,000	6,482,086,000	17,759,000	48.66	19.46	40.
1859 <sup>2</sup>	4,808,875,000	7,589,000,000	.....	283,140,000	.....	12,661,015,000	34,987,700	49.02	38.24	78.
1860	6,300,108,000	None.	.....	174,240,000	.....	6,483,348,000	17,714,100	55.44	19.40	35.
1861	6,639,095,900	3,377,559,000	.....	.....	1,456,290,000	8,557,394,900	23,444,900	45.44	35.45	56.
1862	6,039,000,000	83,200,000	.....	1,306,800,000	.....	7,399,000,000	20,271,200	49.09	22.36	45.
1863	5,927,032,500	2,165,606,500	.....	762,300,000	.....	8,355,049,000	24,260,400	69.30	26.88	39.
1864	6,105,306,700	1,868,746,000	.....	.....	1,846,577,000	5,625,475,700	15,370,200	42.60	18.35	43.
1865	4,621,630,000	1,668,120,700	.....	743,242,500	.....	7,052,963,200	19,322,300	49.46	20.50	41.
1866	4,463,583,000	None.	.....	743,242,500	.....	5,906,827,500	14,266,300	62.32	16.01	24.
1867	4,931,223,000	2,482,041,000	.....	.....	698,911,000	6,734,456,000	18,460,600	56.26	21.80	39.
1868	6,405,516,000	2,507,864,000	.....	346,371,000	.....	8,250,570,000	32,567,300	49.71	24.98	50.

# WATER-SUPPLY DEPARTMENT.

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1869	6,503,751,000	1,435,570,000	.....	480,882,000	.....	7,620,203,000	20,877,300	64.34	21.99	34.
1870	6,477,810,000	4,818,971,000	.....	.....	.....	8,560,606,000	23,453,900	55.39	26.08	47.
1871	5,223,500,000	None.	.....	.....	.....	4,972,567,000	13,023,500	45.39	15.16	33.
1872	5,775,151,200	None.	.....	.....	.....	5,642,480,300	15,416,600	48.47	17.22	35.
1873	6,511,826,900	2,917,977,000	.....	.....	.....	8,914,871,900	24,423,800	45.43	27.13	60.
1874	6,623,972,900	1,145,851,700	.....	.....	.....	6,402,109,900	17,540,000	35.93	19.52	54.
1875	7,092,955,500	None.	.....	.....	.....	5,760,040,500	15,780,900	45.49	17.57	39.
1876	7,377,175,200	1,619,243,800	.....	.....	.....	6,411,557,000	17,517,900	48.49	19.54	40.
1877	7,626,889,200	1,484,978,600	.....	.....	.....	7,596,244,800	20,811,600	43.80	23.17	53.
1878	7,743,904,700	3,841,875,000	.....	.....	.....	8,837,268,700	23,663,700	53.53	26.34	49.
1879	6,051,838,900	1,523,361,400	.....	.....	.....	5,841,203,000	16,003,300	38.01	17.81	47.
1880	4,284,147,100	65,577,700	.....	.....	.....	3,376,759,800	9,226,100	35.83	10.30	29.
1881	2,846,459,700	2,221,016,700	.....	.....	.....	5,357,965,800	14,679,400	41.09	16.31	40.
1882	3,935,490,600	1,358,543,700	.....	.....	.....	4,936,899,600	13,525,200	40.29	15.05	37.
1883	4,751,227,700	1,62,361,800	.....	.....	.....	3,314,089,500	9,079,700	31.20	10.11	32.
1884	4,583,156,450	1,842,837,100	.....	.....	.....	6,300,130,350	17,213,450	45.57	19.21	42.
1885	4,091,674,900	1,006,622,800	.....	.....	.....	5,106,892,500	13,991,500	43.66	15.57	36.
1886	4,432,536,100	3,116,293,200	.....	.....	.....	7,188,157,300	19,693,600	46.97	21.92	47.
1887	4,802,120,700	3,658,652,900	.....	.....	.....	7,697,568,900	21,089,200	41.58	23.47	56.
1888	4,908,503,100	4,229,200,000	.....	.....	.....	10,157,012,100	37,751,400	56.93	30.97	54.
1889	5,570,425,600	3,373,929,000	.....	.....	.....	9,165,719,400	25,111,600	50.23	27.95	56.
1890	5,722,170,800	2,390,441,200	.....	.....	.....	8,038,445,700	22,023,100	51.23	24.51	48.
1891	5,508,178,900	6,064,000,000	.....	.....	.....	10,516,121,100	28,811,300	46.42	32.07	69.
Averages	6,221,295,100	2,450,125,200	.....	.....	.....	7,288,861,200	19,938,000	47.98	22.16	46.

1 Observation of rainfall at Lake Cochituate commenced 1852, and these observations are assumed as correct for the whole district.  
 2 Lake raised two feet.

showing Amount of Water drawn from Mystic Lake; Amount wasted; Amount of Rainfall collected in Lake; Percentage of Rainfall collected, etc., 1876 to 1891; Water-shed of Lake, 17,200 Acres.

YEAR.	Amount of Water drawn from Lake.	Amount of Water wasted from Lake.	STORAGE.		Total amount of Rainfall collected in Lake.	Daily average amount of Rainfall collected in Lake.	Rainfall.	Rainfall collected.	Percentage of Rainfall collected.
			Gain.	Loss.					
	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Inches.	Inches.	Per cent.
1876 . . . . .	3,230,101,300	6,360,774,700	. . . . .	32,583,000	9,547,233,000	26,140,100	47.00	20.49	43.6
1877 . . . . .	3,069,554,800	7,250,223,500	. . . . .	16,291,400	10,303,486,900	28,228,700	43.095	22.06	51.2
1878 . . . . .	3,367,490,400	8,718,547,800	. . . . .	26,000,000	12,060,038,000	33,041,200	54.065	25.32	47.3
1879 . . . . .	3,490,848,200	4,625,901,800	. . . . .	203,000,000	7,913,540,000	21,680,900	35.30	16.94	48.0
1880 . . . . .	3,692,195,700	2,158,751,200	. . . . .	113,500,000	5,703,758,900	15,584,000	34.42	12.21	35.5
1881 . . . . .	2,815,579,900	5,534,300,000	371,200,000	. . . . .	8,721,079,900	23,863,400	41.91	18.67	44.5
1882 . . . . .	2,570,896,700	4,444,663,000	15,000,000	. . . . .	7,030,564,700	19,261,800	39.165	15.05	38.4
1883 . . . . .	2,664,514,200	2,034,702,800	. . . . .	347,579,000	4,351,637,800	11,922,300	31.22	9.32	29.64
1884 . . . . .	2,466,761,000	6,574,003,800	380,600,000	. . . . .	9,424,364,800	25,749,600	44.39	20.18	45.46
1885 . . . . .	2,639,278,800	5,558,860,500	. . . . .	83,200,000	8,194,039,300	22,451,900	44.50	17.55	39.43
1886 . . . . .	2,862,947,500	7,743,258,900	. . . . .	28,400,000	10,577,806,400	28,980,300	45.56	22.65	49.71
1887 . . . . .	2,964,257,500	7,414,213,000	. . . . .	11,000,000	10,357,470,500	28,376,800	46.42	22.17	47.77
1888 . . . . .	3,205,121,100	11,364,593,100	. . . . .	6,000,000	14,535,714,200	39,709,600	56.745	31.12	54.94
1889 . . . . .	3,007,539,800	8,879,787,500	12,000,000	. . . . .	11,999,827,800	32,600,900	50.395	25.48	50.36
1890 . . . . .	3,212,264,500	8,963,727,900	. . . . .	3,000,000	12,165,012,400	33,323,300	49.37	26.04	52.75
1891 . . . . .	3,000,817,500	10,027,714,400	. . . . .	171,000,000	13,337,531,900	36,600,000	47.40	28.60	60.34
Average . . . . .	3,047,074,300	6,728,201,800	. . . . .	. . . . .	9,746,972,800	26,731,300	44.433	30.90	46.23

MONTH

January

February

March

April

May

June

July

August

September

October

November

December

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# WATER WORKS.

ver Reservoirs, Farm Pond, and Cochituate and  
 ury River Water Shed during the year 1891.

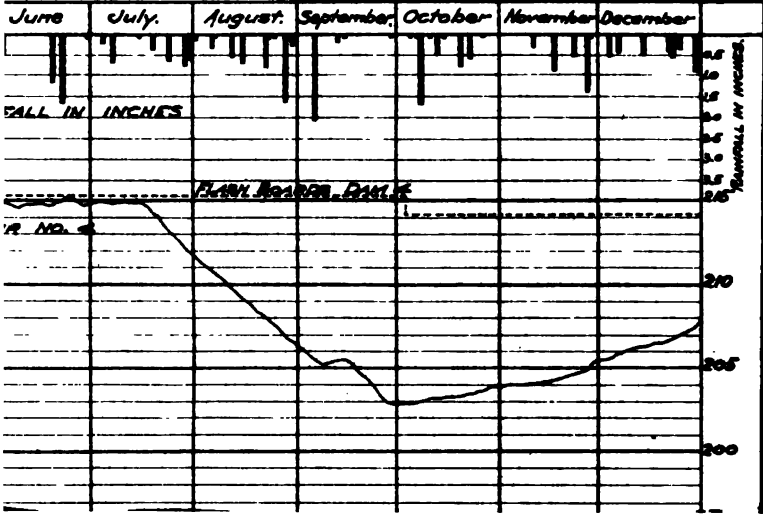


Table showing the Average Monthly and Yearly Heights above Tide-mark Level of the Water in the Lakes and Reservoirs of the Boston Water Works.

MONTHS.	Reservoir No. 1. Flash boards. 159.29.		Reservoir No. 2. Flash boards. 167.12.		Reservoir No. 3. Ston. crest. 175.24.		Reservoir No. 4. Flash boards. 215.21.		Farm Pond. High water. 149.25.		Lake Cochituate. High water. 134.36.		Chestnut-Hill Reservoir. High water. 124.00.		Brookline Reservoir. High water. 124.00.		Parker-Hill Reservoir. High water. 219.00.		Myatic Lake. High water. 7.00.		Myatic Reservoir. High water. 147.00.		Fisher-Hill Reservoir. High water. 241.00.		
	1890.	1891.	1890.	1891.	1890.	1891.	1890.	1891.	1890.	1891.	1890.	1891.	1890.	1891.	1890.	1891.	1890.	1891.	1890.	1891.	1890.	1891.	1890.	1891.	
January	157.95	158.23	163.12	166.20	175.55	175.32	214.53	213.85	149.64	149.48	132.49	132.95	123.45	123.48	123.02	123.25	—	—	—	—	4.75	146.75	149.66	239.22	240.12
February	157.99	158.33	166.15	168.06	175.57	174.41	214.54	210.14	149.27	149.53	132.58	132.73	123.42	123.43	123.24	123.20	218.48	218.77	5.44	4.56	146.77	146.87	239.47	240.23	
March	158.39	158.45	164.63	165.57	173.92	172.73	213.53	210.35	149.54	149.50	132.30	133.13	123.43	123.27	123.27	123.06	218.75	218.75	5.15	4.79	146.81	146.85	239.01	240.34	
April	158.09	158.15	166.18	166.12	175.56	175.59	214.56	214.26	149.29	149.33	133.03	134.23	123.47	123.52	123.31	123.32	218.63	218.76	5.93	5.81	146.51	146.63	239.04	240.17	
May	157.96	158.64	166.57	166.59	175.56	175.30	214.54	214.50	149.30	149.32	133.82	133.56	123.79	123.47	123.45	123.02	218.49	218.71	6.44	6.71	146.55	146.52	239.00	240.00	
June	158.90	159.36	167.18	165.36	175.45	175.37	214.71	214.94	149.99	149.17	133.56	132.68	123.79	123.70	123.61	123.47	218.56	218.71	6.55	6.58	146.43	146.57	239.48	240.10	
July	159.09	157.57	162.37	162.79	175.17	175.30	213.90	214.07	149.15	148.96	131.99	131.44	123.81	123.76	123.58	123.50	218.65	218.83	5.73	5.62	146.69	146.90	239.89	240.60	
August	158.67	157.77	160.86	158.86	174.21	175.00	208.51	208.92	148.85	148.83	130.34	130.04	123.82	123.86	123.59	123.58	218.90	218.90	3.82	3.67	146.82	146.93	239.67	240.46	
September	157.63	157.88	164.02	160.47	175.14	173.17	202.33	204.72	149.07	148.94	129.55	129.02	123.77	123.69	123.54	123.43	218.76	218.67	3.31	3.29	146.70	146.84	239.59	240.35	
October	157.99	157.44	165.85	158.51	175.62	169.84	205.15	203.35	149.54	148.81	130.38	127.67	123.86	123.69	123.53	123.43	218.96	218.69	4.68	0.20	146.58	146.56	240.05	240.61	
November	157.92	156.97	166.13	158.64	175.52	164.60	212.53	204.41	149.19	148.75	132.47	126.71	123.88	123.82	123.68	123.31	218.99	218.60	5.65	—	0.30	146.61	146.90	240.39	240.73
December	157.84	157.90	166.09	162.15	175.47	164.03	214.13	206.51	149.28	148.84	132.64	126.72	123.53	123.73	123.03	123.51	218.74	218.91	5.48	0.63	146.70	146.84	239.82	240.62	
Yearly averages	158.19	157.98	165.18	163.11	175.23	172.34	211.92	209.99	149.33	149.12	132.08	130.91	123.67	123.62	123.40	123.34	218.69	218.76	5.31	3.78	146.57	146.78	239.55	240.36	

## Statement of Operations at the Chestnut-Hill Pumping Station for 1891.

1891.	Engine No. 1.		Engine No. 2.		Total amount pumped.	Daily average pumped.	Total amount of coal consumed.	Daily average amount of coal consumed.	Total ashes and clinkers.	Per cent. ashes and clinkers.	Quantity pumped per lb. of coal. No correction for heating and lighting.	Quantity pumped and corrected for heating and lighting.	Average lift in feet.	Duty in ft.-lbs. per 100 lbs. of coal.			Water evaporated in boiler per lb. of coal.
	Total pump- ing- time.	Amount pumped.	Total pump- ing- time.	Amount pumped.										Without correction for heating and lighting.	Corrected for heating buildings.	Corrected for heating and lighting.	
Month.	Lbs.	Gallons.	Lbs.	Gallons.	Gallons.	Gallons.	Lbs.	Lbs.	Lbs.	Cent.	Gallons.	Gallons.	Feet.	Ft.-lbs.	Ft.-lbs.	Ft.-lbs.	Lbs.
Jan. . . . .	598 15	209,531,125	598 15	209,531,125	6,759,100	945,944	7,680	21,504	8.7	852.3	957.1	123.66	87,899,100	93,436,700	98,609,200	10.26	12.10
Feb. . . . .	533 00	188,962,250	533 00	188,962,250	6,748,700	216,763	7,742	18,548	8.6	871.7	975.4	124.05	90,188,900	95,780,600	100,932,800	10.28	12.11
March . . . . .	579 00	203,505,850	579 00	203,505,850	6,629,200	235,633	7,611	20,700	8.8	871.0	964.2	124.72	90,602,000	96,494,500	100,299,200	10.17	11.98
April . . . . .	559 15	197,856,500	559 15	197,856,500	6,565,200	220,362	7,346	19,419	8.8	897.9	972.4	124.24	93,033,900	96,383,100	100,720,300	10.26	12.02
May . . . . .	620 00	221,006,625	620 00	221,006,625	7,129,200	240,462	7,757	20,988	8.7	919.1	974.2	124.35	95,317,100	97,509,400	101,019,700	10.20	11.88
June . . . . .	633 00	220,849,300	633 00	220,849,300	7,605,000	227,339	7,911	19,623	8.3	972.7	1004.8	123.86	100,466,600	103,782,000	107,820,000	10.29	11.92
July . . . . .	629 40	227,948,475	629 40	227,948,475	7,675,800	248,657	8,021	19,474	7.8	956.9	986.6	124.72	99,537,000	103,782,000	107,820,000	10.49	12.12
Aug. . . . .	617 10	224,275,135	617 10	224,275,135	7,537,300	241,270	7,783	18,919	7.8	971.0	1009.8	124.56	100,863,200	104,897,700	109,500,000	10.50	12.09
Sept. . . . .	495 00	190,820,710	495 00	190,820,710	8,020,500	252,335	8,411	20,965	8.3	953.6	984.6	124.93	99,352,400	103,624,600	108,460,000	10.46	12.07
Oct. . . . .	619 00	227,324,550	619 00	227,324,550	7,655,600	258,957	8,353	22,310	8.6	916.5	974.2	125.32	95,785,900	97,031,100	101,785,600	10.49	12.19
Nov. . . . .	592 00	221,711,675	592 00	221,711,675	7,390,400	246,834	8,228	21,578	8.7	898.2	976.3	125.43	93,961,800	96,780,700	102,103,600	10.40	12.19
Dec. . . . .	598 15	225,577,650	598 15	225,577,650	7,276,700	265,996	8,580	24,517	9.2	848.1	923.6	125.42	88,706,500	91,456,400	96,578,000	10.31	12.15
Totals and averages.	3419 25	1,261,475,610	3419 25	1,261,475,610	7,963,500	2,010,751	7,975	248,660	8.5	910.8	975.5	124.60	94,648,900	97,015,100	101,380,800	10.34	12.06

Statement of Operations at the Mystic Pumping-Station for 1891.

1891.	ENGINE NO. 1.				ENGINE NO. 2.				ENGINE NO. 3.				Daily average amount consumed.	Daily average amount of ashes and clinkers.	Per cent. ashes and clinkers.	Quantity pumped per pound of coal.	Average lift in feet.	Duty in foot-pounds per 100 coal.
	Total pumping-time.		Amount pumped.	Total pumping-time.		Amount pumped.	Total pumping-time.		Amount pumped.									
	Hrs.	Min.		Gallons.	Hrs.		Min.	Gallons.		Hrs.	Min.	Gallons.						
Month.	Hrs.	Min.	Gallons.	Hrs.	Min.	Gallons.	Hrs.	Min.	Gallons.	Hrs.	Min.	Gallons.	Lbs.	Lbs.	Per ct.	Gal.	Feet.	Fr.-lbs.
January . . . .	29	15	5,390,700	96	00	17,470,700	730	00	251,827,200	274,688,600	8,960,900	18,268	20,306	2,065	10.2	483.0	147.39	56,908,400
February . . . .	298	45	48,954,200	439	00	92,004,300	443	45	143,001,600	283,960,100	9,465,300	21,750	19,821	2,028	10.2	477.7	147.17	58,628,100
March . . . . .	8	15	1,615,700	237	45	46,648,900	734	15	249,164,800	297,424,400	9,594,306	20,097	17,968	1,871	10.4	490.8	146.66	60,028,200
April . . . . .	19	30	3,790,100	155	30	29,173,200	744	00	249,625,600	282,588,900	9,115,800	18,581	16,400	1,597	9.7	489.3	146.24	59,666,100
May . . . . .	168	45	30,592,600	62	00	12,517,900	692	30	230,004,800	273,715,300	9,123,800	19,133	18,581	1,924	10.4	490.6	148.42	60,728,300
June . . . . .	289	30	54,843,200	41	45	8,471,100	676	30	224,153,600	287,467,900	9,273,200	20,129	19,133	2,007	10.5	476.9	148.56	59,082,000
July . . . . .	168	45	30,592,600	62	00	12,517,900	692	30	230,004,800	273,715,300	9,123,800	19,133	20,129	2,084	10.4	460.7	149.47	57,428,100
August . . . . .	289	30	54,843,200	41	45	8,471,100	676	30	224,153,600	287,467,900	9,273,200	20,129	18,067	1,863	10.3	473.6	149.81	59,177,900
September . . . .	168	45	30,592,600	62	00	12,517,900	692	30	230,004,800	273,715,300	9,123,800	19,133	19,274	1,900	9.9	464.9	149.27	57,882,000
October . . . . .	289	30	54,843,200	41	45	8,471,100	676	30	224,153,600	287,467,900	9,273,200	20,129	19,274	1,900	9.9	464.9	149.27	57,882,000
November . . . .	168	45	30,592,600	62	00	12,517,900	692	30	230,004,800	273,715,300	9,123,800	19,133	19,274	1,900	9.9	464.9	149.27	57,882,000
December . . . .	289	30	54,843,200	41	45	8,471,100	676	30	224,153,600	287,467,900	9,273,200	20,129	19,274	1,900	9.9	464.9	149.27	57,882,000
Totals and averages }	884	00	145,186,500	1,777	15	346,862,100	8,352	30	2,812,902,400	3,304,951,000	9,054,700	19,147	19,147	1,960	10.2	472.9	148.02	58,380,500



*Rainfall in Inches and Hundredths on the Sudbury River Water-shed for the Year 1891.*

1891.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1. ....	...	0.340	...	...	...	...	...	0.130	...	...	...	...
2. ....	1.425	...	...	...	...	0.385	...	...	...	...	...	...
3. ....	...	0.545	...	2.480	0.100	...	...	...	...	...	...	...
4. ....	...	...	2.065	0.010	...	0.500	0.225	...	...	...	...	0.565
5. ....	0.105	...	...	...	...	...	...	...	...	0.115	...	...
6. ....	...	0.155	...	...	...	...	...	0.345	2.040	...	...	...
7. ....	...	...	...	...	...	...	0.715	0.070	...	0.020	...	0.415
8. ....	...	0.650	...	...	...	...	...	...	...	1.695	...	...
9. ....	...	...	1.455	...	...	...	...	...	...	...	...	...
10. ....	...	0.770	...	...	...	...	...	...	...	...	...	...
11. ....	...	...	...	0.480	...	...	...	...	...	0.065	0.320	...
12. ....	1.130	...	...	...	0.070	...	...	0.525	...	...	...	...
13. ....	...	...	0.900	...	...	...	...	...	0.190	0.495	...	...
14. ....	0.035	...	...	...	...	...	...	...	...	...	...	...
15. ....	...	...	...	0.635	...	...	0.020	0.730	0.070	0.020	...	0.475
16. ....	...	0.070	...	...	1.160	...	...	...	...	...	...	...
17. ....	...	0.120	...	...	...	...	...	...	...	...	0.830	...
18. ....	1.875	0.550	...	0.160	...	...	...	...	...	...	...	...
19. ....	...	...	0.110	...	...	1.195	0.355	...	...	...	...	...
20. ....	...	...	...	...	...	...	...	...	...	0.770	...	...
21. ....	...	0.750	1.945	...	...	...	...	...	...	...	...	...
22. ....	1.295	...	...	...	0.030	1.675	...	0.810	...	...	...	...
23. ....	...	...	...	...	...	...	...	0.110	...	0.575	0.500	0.380
24. ....	...	...	...	...	...	...	0.655	...	...	...	...	0.640
25. ....	0.725	...	...	0.140	...	...	...	0.010	...	...	...	...
26. ....	...	1.185	...	...	0.100	...	...	...	...	...	...	0.330
27. ....	0.040	...	...	...	...	...	...	...	...	0.085	1.400	...
28. ....	...	0.100	...	...	...	...	...	1.645	...	...	0.040	...
29. ....	0.390	...	...	...	0.550	...	0.785	...	0.080	...	...	...
30. ....	...	...	...	...	...	0.015	...	0.285	...	...	...	0.880
31. ....	...	...	...	...	...	...	0.640	0.065	...	...	...	...
Totals. .	7.020	5.235	6.475	3.905	2.010	3.770	3.395	4.725	2.380	3.830	3.090	3.685

Total rainfall during the year, 49.520 inches, being an average of two gauges, located at Framingham and Ashland.

*Rainfall in Inches and Hundredths at Lake Cochituate for the year 1891.*

1891.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1 . . . . .		0.34						0.12				
2 . . . . .	1.33					0.53						
3 . . . . .		0.42		2.40	0.12							
4 . . . . .			1.63			0.33	0.18					0.38
5 . . . . .	0.21									0.35		
6 . . . . .		0.13						0.49	1.77			
7 . . . . .							0.64	0.01				0.22
8 . . . . .		0.70								1.78		
9 . . . . .			1.26									
10 . . . . .		0.80										
11 . . . . .				0.39						0.07	0.31	
12 . . . . .	1.01				0.06			0.77				
13 . . . . .			0.76						0.23	0.58		
14 . . . . .	0.03											
15 . . . . .				0.60			0.03	0.61	0.04	0.03		0.54
16 . . . . .		0.08			0.82							
17 . . . . .											0.81	
18 . . . . .	2.00	0.59		0.16	0.01							
19 . . . . .			0.08			1.02	0.34					
20 . . . . .										0.65		
21 . . . . .		0.71										
22 . . . . .	1.05		1.76			1.87		0.76				
23 . . . . .								0.08		0.60	0.37	0.32
24 . . . . .							0.68					
25 . . . . .	0.87			0.07								
26 . . . . .		1.17			0.15							0.91
27 . . . . .	0.02									0.11	1.33	
28 . . . . .		0.13						1.83	0.08		0.02	
29 . . . . .	0.35					0.03	0.58					
30 . . . . .					0.51							0.80
31 . . . . .							0.54	0.29				
Totals . .	6.67	5.02	5.49	3.62	1.67	3.78	2.99	4.91	2.12	4.14	2.84	3.17

Total rainfall during the year, 46.42 inches.

*Rainfall in Inches and Hundredths on the Mystic Lake Water-shed for the Year 1891.*

1891.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1 . . . . .		0.540						0.025				
2 . . . . .	1.130					0.305						
3 . . . . .		0.480		2.135	0.120	0.395	0.005					
4 . . . . .			1.920			0.015	0.185					0.365
5 . . . . .	0.145									0.195		
6 . . . . .		0.215						0.585	1.825		0.005	
7 . . . . .					0.020		0.710	0.130				0.200
8 . . . . .		0.680								1.595		
9 . . . . .			0.905									
10 . . . . .		0.785										
11 . . . . .				0.285						0.035	0.380	
12 . . . . .	1.035							0.025				
13 . . . . .			0.880		0.045				0.225			
14 . . . . .	0.020									1.155		
15 . . . . .				0.495			0.035	0.760		0.060		0.575
16 . . . . .					1.445							
17 . . . . .		0.445							0.015		0.520	
18 . . . . .	1.475			0.145								
19 . . . . .			0.105			1.540	0.325					
20 . . . . .										1.075		
21 . . . . .		0.740	2.230						0.015			
22 . . . . .	1.030				0.115	2.155		0.530				
23 . . . . .			0.030							0.400	0.265	0.390
24 . . . . .							0.410	0.010				0.540
25 . . . . .	1.010	0.010		0.090								
26 . . . . .		1.060			0.075							0.350
27 . . . . .	0.030									0.170	1.405	
28 . . . . .		0.120				0.010		1.470			0.030	
29 . . . . .	0.370				0.630	0.010	0.655		0.080			
30 . . . . .							0.855					0.940
31 . . . . .					0.010			0.355				
Totals . .	6.245	5.075	6.070	3.150	2.400	4.430	3.180	3.880	2.160	4.735	2.005	3.410

Total rainfall during the year, 47.400 inches, being an average of two gauges, located at Mystic Lake and Winchester.

*Monthly Rainfall in Inches, during 1891, at Various Places in Eastern Massachusetts.*

PLACE.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Lake Cochituate . . . . .	6.67	5.02	5.49	3.82	1.67	3.78	2.99	4.91	2.12	4.14	2.84	3.17	46.42
Framingham . . . . .	6.92	5.12	6.63	3.76	2.17	3.37	3.07	5.22	2.35	3.70	3.04	3.76	46.11
Dam 4, Ashland . . . . .	7.12	5.35	6.32	4.05	1.85	4.17	3.72	4.23	2.41	3.96	3.14	3.61	49.93
Chestnut Hill . . . . .	6.93	5.34	5.63	2.98	2.06	4.04	3.44	4.04	3.05	5.70	2.70	3.73	49.63
Mystic Station, Winchester . . . . .	6.20	5.17	5.95	2.80	2.37	4.33	3.20	3.66	2.01	4.53	2.43	3.20	45.85
Mystic Lake . . . . .	6.29	4.98	6.19	3.50	2.55	4.53	3.16	4.10	2.31	4.94	2.78	3.62	48.95
Mystic Pumping station . . . . .	5.99	4.85	5.68	2.85	2.31	4.09	3.29	3.72	2.67	5.05	2.50	3.45	46.45
Boston Pipe-yard . . . . .	6.11	5.27	5.35	2.53	2.69	2.86	3.18	3.74	1.58	5.50	2.65	3.66	45.12
Cambridge Observatory . . . . .	6.09	4.55	4.90	2.44	2.10	3.57	2.93	3.21	2.63	4.82	2.22	3.29	42.76
Waltham, Boston Manufacturing Co. . . . .	5.71	4.83	5.96	3.14	1.93	4.02	2.83	5.32	2.53	4.34	2.67	3.90	47.18
Lowell, Locks and Canals Co. . . . .	7.041	4.841	6.004	3.564	2.289	3.656	3.169	2.144	1.787	2.928	1.918	3.204	42.546
Lowell, Merrimac Manufacturing Co. . . . .	6.62	2.631	4.202	2.80	1.96	3.20	2.62	1.885	1.295	2.60	0.93	3.09	33.833
Average of twelve places . . . . .	6.474	4.830	5.692	3.169	2.162	3.892	3.133	3.848	2.228	4.351	2.485	3.474	45.648

*Rainfall Received and Collected 1891.*

MONTH.	SUDBURY.			COCHITUATE.			MYSTIC.		
	Rainfall.	Rainfall collected.	Per cent. collected.	Rainfall.	Rainfall collected.	Per cent. collected.	Rainfall.	Rainfall collected.	Per cent. collected.
	Inches.	Inches.	Per cent.	Inches.	Inches.	Per cent.	Inches.	Inches.	Per cent.
January . .	7.020	5.383	76.69	6.67	6.26	93.81	6.245	6.298	100.67
February . .	5.235	5.616	107.28	5.02	6.62	131.93	5.075	5.969	117.61
March . . .	6.475	7.944	122.69	5.49	8.03	146.26	6.070	7.206	118.74
April . . .	3.905	4.138	105.97	3.62	4.31	119.15	3.150	3.434	109.01
May . . . .	2.010	1.039	51.70	1.67	0.88	52.75	2.460	1.402	57.01
June . . .	3.770	0.714	18.92	3.78	0.77	20.36	4.430	1.010	22.80
July . . . .	3.395	0.266	7.83	<del>3.69</del>	0.50	16.65	3.180	0.422	13.27
August . .	4.725	0.290	6.15	4.91	0.72	14.69	3.880	0.439	11.31
September .	2.380	0.350	14.71	2.12	0.76	35.91	2.160	0.417	19.32
October . .	3.830	0.375	9.78	4.14	0.79	18.95	4.735	0.575	12.14
November .	3.090	0.526	17.03	2.84	0.83	29.21	2.805	0.565	21.65
December .	3.685	0.971	26.34	3.17	1.60	50.47	3.410	0.873	25.59
Totals and averages	49.520	27.612	55.76	46.42	32.07	69.08	47.400	28.600	60.34

*Table showing the Temperature of Air and Water at Various Stations on the Water-Works.*

1891.	TEMPERATURE OF AIR.						TEMPERATURE OF WATER.	
	Chestnut-Hill Reservoir.			Framlingham.			Brookline Reservoir.	Mystic Engine-House.
	Maximum.	Minimum.	Mean.	Maximum.	Minimum.	Mean.	Mean.	Mean.
January . . . .	54.0	9.0	29.3	51.0	0.0	28.3	36.3	34.0
February . . . .	62.0	2.0	31.5	62.0	-1.0	31.1	36.0	34.1
March . . . . .	54.0	0 0	33.8	51.0	0.0	32.9	37.1	35.2
April . . . . .	78.0	24.0	49.5	77.0	24.0	49.0	48.8	48.3
May . . . . .	88.5	30.0	57.2	85.0	30.0	57.3	57.0	58.1
June . . . . .	96.0	42.5	65.9	96.0	38.0	65.4	65.1	68.2
July . . . . .	90.5	51.0	68.6	89.0	46.0	67.5	71.5	70.7
August . . . . .	90.0	47.5	70.2	94.0	45.0	69.4	73.6	74.5
September . . .	90.0	47.0	67.2	88.0	44.0	65.4	69.7	69.3
October . . . .	86.0	28.5	51.0	84.0	26.0	48.6	58.2	59.5
November . . .	66.0	9.5	41.4	66.0	6.0	39.0	44.6	44.7
December . . .	64.0	12.0	39.2	67.0	8.0	37.8	38.2	39.2

## REPORT OF THE SUPERINTENDENT OF THE MYSTIC DIVISION.

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ROBERT GRANT, Esq., *Chairman Boston Water Board*:

SIR: The report of the Mystic Division of the Boston Water-Works, from Jan. 1, 1891, to Feb. 1, 1892, is herewith submitted.

### MYSTIC LAKE.

Mystic lake was nearly full until the last of June, when it began to fall until November 26. It was then 7.67 feet below high-water mark. On January 1, it had filled to within 4.68 feet below high-water, and was wasting over the flash-boards January 15.

The stonework at the dam has been pointed and the wooden bridge rebuilt. The bridge across the Abbajona river, known as Bacon's bridge, has been replanked with 3-inch planks. A wooden fence 865 feet long has been built on the Arlington road, leading to the lake, and a telephone placed in the gate-keeper's house. At the engine-houses, stone foundations have been laid for the boilers, and the floors newly timbered and planked. The engines, boilers, and pumps have been overhauled and thoroughly repaired. The usual work of removing the *algæ* from Horn and Wedge ponds, and that section of the river above Whitney's dam, has been done. Taking advantage of the lowness of the water during the early fall, we have cleansed and in some places gravelled portions of the beds of the lake, ponds, and feeders.

### MYSTIC RESERVOIR.

Five hundred and fifty feet of the road leading to the pumping-station have been macadamized and 638 feet of wooden fence built. All the seats along the walk on top of the reservoir have been repaired, and some repairs have been made in and about the gate-house. The banks have been top-dressed, and the adjoining roads have received the customary care. The basins will be cleaned and repaired during the coming spring.

### CONDUIT.

The conduit has been cleaned and flushed twice in the past year and a few defects remedied.

## FORCE-MAINS.

A new check-valve has been placed in the 30-inch main connected with Engine No. 3 and a 2-inch blow-off put on the main connected with the effluent chamber.

## PUMPING-STATION.

Engines Nos. 1 and 2 have been furnished with new valve-rods, and Engine No. 1 has had a new set of water-valves attached. The boiler-pumps have been thoroughly overhauled and repaired, and the doors of boilers Nos. 1, 2, and 3 have had improved fire-proof linings affixed. All the boilers have been cleaned and inspected, and, at present, boilers Nos. 4, 5, and 6 are again laid up for the same purpose. Much-needed sanitary improvements have been made in the basement of the engine-house. Engines Nos. 1, 2, and 3 and the engine-room have been painted, and the grounds adjacent to the engine-house have been kept in good condition.

## MYSTIC-VALLEY SEWER.

The quantity of sewage pumped during the thirteen months has been 133,102,028 gallons, to which was applied as a precipitant 331,890 lbs. of crude sulphate of alumina. The quantity of sludge precipitated, and also pumped, was 2,953,611 gallons. This sludge in its fluid condition contained at least 96 per cent. moisture, and before it became sufficiently hard to handle by excavation it lost 84 per cent. of its original moisture. The sludge in this semi-state contained moisture to the amount of 75 per cent. of its bulk; and 2,334 cubic yards of it was removed from the settling basins. A large proportion of this sludge was carted away by a neighboring farmer, who used it as a fertilizer. The rate of application of precipitant, during the time covered by this report, was 1 part to 3,354 parts of sewage, or 1.24 tons per 1,000,000 gallons of sewage. The amount of coal used was 210.66 tons.

In May, a new centrifugal pump of larger size was substituted for the old sewage pump. A movable cage, for intercepting large pieces of floating matter in the sewage, has been fitted to the gate-frame of one of the sewer manholes near the works. This has proved of great benefit by retaining considerable hair and leather which otherwise would have passed to the sewage pump, and thereby have had a tendency to clog it. The roadway has been improved and two new sludge-basins built. A stone foundation has been laid for the boiler, a few slight repairs have been made, on the



pumps, a new smoke-stack erected, and new belting substituted.

The plant is in good condition, with the exception of the flume, which conveys the sewage to the several tanks, and the sludge-gates in the tank building; but in the coming spring the necessary repairs will be made.

#### POLLUTION INSPECTION.

Many of the landlords and householders along the supply have been interviewed, and most of them have displayed a willingness to comply with our requirements. One hundred and eighty old cases and 155 new cases have been inspected; 37 cesspools and 12 vaults have been cleaned, to prevent overflowing; 20 new cesspools and 3 vaults built; 28 drains and 3 vaults abandoned; 16 manure-piles, 23 sinks, 11 water-closets, and 2 urinals removed. In the case of the last three items the fixtures have been arranged to discharge into the Woburn city drain, which connects with Mystic sewer.

An experiment to filter the sewage at Dow's tannery, Woburn, has met with fair success. The sewage from this establishment contains a large quantity of lime and grease, which must be removed before the effluent water is applied to the filter; and if these substances can be eliminated, the desired result will probably be obtained.

#### FILTRATION EXPERIMENTS.

An experimental station for filtering Mystic water has been established at West Medford, near the pumping-station. The results obtained thus far, both by the continuous and the intermittent methods of filtering, show that a continuation of the experiments will be required, in order to give results from which positive conclusions may be drawn.

#### DISTRIBUTION-PIPES.

The distribution-pipes have been extended by the addition of 452 feet of 8-inch pipe, 591 feet of 6-inch pipe, and 105 feet of 4-inch pipe. There have been 4,597 feet of cement-lined pipes replaced by cast-iron pipes.

There are remaining in the Charlestown District 9,900 feet of cement-lined distribution-pipes, varying from 2 inches to 20 inches.

## HYDRANTS AND GATES.

Seven new hydrants, 4 street Lowry hydrants, and 4 Post hydrants have been established. Twelve street Lowry hydrants have been abandoned and new ones substituted. One flush hydrant has been replaced by a street Lowry hydrant. Fifteen additional gates have been established: 1 sixteen-inch gate, 3 twelve-inch gates, 1 eight-inch gate, 8 six-inch gates, and 2 four-inch gates.

## FOUNTAINS AND STAND-PIPES.

One new drinking-fountain has been erected on Monument square, and 8 additional stand-pipes, for street-watering carts, have been established.

## SERVICE-PIPES AND BOXES.

Eighty-two new services have been laid and 135 services repaired, for which 3,009 feet of lead pipe and 1,148 feet of cast-iron pipe were required. Thirty-six one-half inch, and 2 five-eighths inch tin-lined services have been removed and larger pipes substituted. Twenty-one wooden service-boxes have been replaced by iron boxes. Ten leaks have been repaired, and 42 stoppages by eels, 12 by rust, and 19 by moss, have been blown out.

## New Services.

Size . . . . .	$\frac{1}{2}$ -in.	$\frac{3}{4}$ -in.	1 in.	2-in.	6-in.	Total number.	Total ft.
Number . . . . .	51	11	4	12	4	82	2,318

## Summary of Services connected with Works, Feb. 1, 1892.

	Charlestown.	Somerville.	Chelsea.	Everett.	Total.
Number of services . . . . .	5,987	6,953	5,231	2,387	20,558
Number of feet . . . . .	160,069	232,852	140,856	47,598	581,375

## Breaks and Leaks on Distribution-Pipes.

Size of Pipes . . . . .	3 in.	4-in.	6-in.	8-in.	10-in.	Total.
Charlestown . . . . .	...	...	1	...	...	1
Chelsea . . . . .	2	21	6	1	4	34
Somerville . . . . .	...	22	12	1	...	35

## Distribution-Pipes Relaid.

LOCATION.	Original Size.	6-in.	8-in.	10-in.	12 in.	14-in.	18-in.	20-in.	Total.
Caldwell street . . . . .	6-in.	...	280	...	...	...	...	...	280
Main street, Rider Pipe . .	6-in.	...	88	...	...	...	...	...	88
Sever street . . . . .	4-in.	680	...	...	...	...	...	...	680
Main street, Rider Pipe . .	6-in.	216	...	...	...	...	...	...	216
Main street, Rider Pipe . .	8-in.	202½	...	...	...	...	...	...	202½
Medford street . . . . .	6-in.	72	...	...	...	...	...	...	72
Medford street . . . . .	12-in.	...	...	...	1,506	...	...	...	1,506
Prescott street . . . . .	6-in.	400½	...	...	...	...	...	...	400½
Pleasant street . . . . .	4-in.	170	...	...	...	...	...	...	170
School street . . . . .	4-in.	337	...	...	...	...	...	...	337
Charles-street court . . . .	3-in.	306	...	...	...	...	...	...	306
Charles street . . . . .	4-in.	339½	...	...	...	...	...	...	339½
Chelsea . . . . .	4-in.	2,363	...	...	...	...	...	...	2,363
Chelsea . . . . .	3-in.	135	...	...	...	...	...	...	135
Chelsea . . . . .	6-in.	564	...	...	...	...	...	...	564
Somerville . . . . .	4-in.	305	...	...	...	...	...	...	305
Somerville . . . . .	6-in.	2,032	...	...	...	...	...	...	2,032
Somerville . . . . .	8-in.	...	2,906	...	...	...	...	...	2,906
Somerville . . . . .	10-in.	...	...	227	...	...	...	...	227
Somerville . . . . .	12-in.	...	...	...	2,024	...	...	...	2,024
Somerville . . . . .	14-in.	...	...	...	...	1,793	...	...	1,793
Somerville . . . . .	18-in.	...	...	...	...	...	700	...	700
Somerville . . . . .	20-in.	...	...	...	...	...	...	743	743
Everett . . . . .	10-in.	...	...	178	...	...	...	...	178
Everett . . . . .	6-in.	...	227	...	...	...	...	...	227
Everett . . . . .	6-in.	196	...	...	...	...	...	...	196
Everett . . . . .	4-in.	589	...	...	...	...	...	...	589
Everett . . . . .	8-in.	...	2,778	...	...	...	...	...	2,778
									22,357½

**Extension of Distribution-Pipes.**

SIZE OF PIPES.	2-in.	3-in.	4-in.	6-in.	8-in.	10-in.	Total.
Main and Alford sta., Rider Pipe . . . . .				98	236		
Caldwell street . . . . .					216		
Hayes court, off Everett street . . . . .			105				
Shurtleff court . . . . .				48			
Spice street . . . . .				445			
Somerville . . . . .	1,233		647	8,049	3,502	730	
Chelsea . . . . .			129	120			
Everett . . . . .			4,576	9,915	1,362		
	1,233		5,467	18,675	5,316	730	31,411

## Length of Distributing-Mains connected with Works Feb. 1, 1892.

	DIAMETER.													TOTAL.
	3-in.	4-in.	6-in.	8-in.	10-in.	12-in.	14-in.	16-in.	18-in.	20-in.	24-in.	30-in.	36-in.	
Charlestown . . .	2,400	24,425	62,402	22,406	5,606	15,087	. . . . .	20,140	. . . . .	6,180	16,982	25,206	974	201,868
Somerville . . . .	7,455	90,594	164,766	49,078	11,081	9,154	8,037	. . . . .	387	. . . . .	. . . . .	. . . . .	. . . . .	340,552
Chelsea . . . . .	18,313	77,014	38,970	7,787	26,653	. . . . .	. . . . .	2,348	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	171,085
Everett . . . . .	914	51,531	57,506	4,043	7,128	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	121,172
Total . . . . .	29,082	243,614	323,644	83,304	50,468	24,241	8,037	22,488	387	6,180	16,982	25,206	974	834,707

## Number of Gates connected with Works Feb. 1, 1892.

	12	165	207	66	17	37	25	. . . . .	. . . . .	4	11	13	. . . . .	546
Charlestown . . .	5	225	314	27	22	23	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	616
Somerville . . .	30	179	64	22	19	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	814
Chelsea . . . . .	4	85	106	10	8	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	213
Everett . . . . .														
Total . . . . .	51	654	691	115	66	60	25	. . . . .	. . . . .	4	11	12	. . . . .	1,689

**Hydrants Established.**

	ESTABLISHED.			ABANDONED.	Net Increase.
	Lowry.	Boston Lowry.	Post.	Flush.	
Charlestown . . . . .	5	.....	4	1	8
Somerville . . . . .	.....	.....	31	.....	31
Chelsea . . . . .	.....	.....	.....	.....	.....
Everett . . . . .	.....	.....	26	.....	26
Total . . . . .	5	.....	61	1	65

**Total Number of Hydrants in use Feb. 1, 1892.**

Charlestown . . . . .	198	33	54	38	323
Somerville . . . . .	2	.....	465	.....	467
Chelsea . . . . .	.....	.....	184	2	186
Everett . . . . .	1	.....	128	.....	129
Medford . . . . .	.....	.....	2	6	8
Pumping-Station . . . . .	.....	.....	2	1	3
Total . . . . .	201	33	835	47	1,116

Respectfully submitted,

EUGENE S. SULLIVAN,

*Superintendent.*

## SUMMARY OF STATISTICS.

## REPORT OF 1891.

IN ACCORDANCE WITH THE RECOMMENDATION OF THE NEW  
ENGLAND WATER-WORKS ASSOCIATION.

Boston Water-Works, Suffolk County, Massachusetts, supplies also the cities of Somerville and Chelsea, and the town of Everett.

## Population by census of 1890 :

Boston . . . . .	448,477
Chelsea . . . . .	27,909
Somerville . . . . .	40,152
Everett . . . . .	11,068
Total . . . . .	527,606

## Date of construction :

Cochituate Works . . . . .	1848
Mystic " . . . . .	1864

By whom owned. — City of Boston.

Sources of supply. — Lake Cochituate, Sudbury river, and Mystic lake.

Mode of supply. — Sixty-five per cent. from gravity works.  
Thirty-five " " " pumping "

## PUMPING.

	COCHITUATE.	MYSTIC.
Builder of pumping machinery . . .	Holly Co.	H. R. Worthington.
Description of coal used :		
a Kind . . . . .	Bituminous.	Bituminous.
c Size . . . . .	Broken.	Broken.
e Price per gross ton, in bins, . . .	\$4.90.	\$4.34.
f Per cent. of ash, . . .	8.5.	10.2.

	COCHITUATE.	MYSTIC.
Coal consumed for year, in lbs. . . . .	2,910,751	6,988,500
Total pumpage for year, in gallons . . . . .	2,651,164,400	3,304,951,000
Average dynamic head, in feet . . . . .	124.60	148.02
Gallons pumped per lb. of coal . . . . .	910.8	472.9
Duty in foot-lbs. per 100 lbs. of coal . . . . .	101,380,800	58,380,500
Cost of pumping figured on pumping-station expenses, viz. :	\$17,642 30	\$25,958 02
Cost per million gallons raised to reservoir . . . . .	\$6 65	\$7 85
Cost per million gallons raised one foot high . . . . .	\$0.053	\$0.053

## CONSUMPTION.

	COCHITUATE.	MYSTIC.
Estimated population . . . . .	422,100	121,200
Estimated population supplied . . . . .	417,000	120,000
Total consumption, gallons, 13,755,735,400	3,305,139,500	
Passed through meters . . . . .	3,717,945,000	673,625,900
Average daily consumption, gallons . . . . .	37,686,900	9,055,200
Gallons per day, each inhabitant . . . . .	89.3	74.7
Gallons per day, each consumer . . . . .	90.4	75.5
Gallons per day to each tap, . . . . .	599	440

## DISTRIBUTION.

*Mains.*

	COCHITUATE.	MYSTIC.
Kind of pipe used . . . . .	{ Cast-Iron.	Cast-Iron, Wrought-Iron and Cement.
Sizes . . . . .	48-in. to 4-in.	30-in. to 3-in.
Extended, miles . . . . .	20.	5.8
Total now in use . . . . .	519.	158.
Distribution-pipes less than 4-in., length miles . . . . .	0	5.5
Hydrants added . . . . .	247	65



		OCHITUATE.	MYSTIC.
Hydrants now in use . .		5,684	1,116
Stop-gates added . .		289	114
Stop-gates now in use . .		5,691	1,689

*Services.*

Kind of pipe used . .	{	Lead.	Lead and Wrought-Iron.
Sizes . . . .		$\frac{5}{8}$ -in. to 4-in.	$\frac{1}{2}$ -in. to 2-in.
Extended, feet . . . .		64,224	28,695
Service-taps added . . . .		2,159	1,036
Total now in use . . . .		62,877	20,556
Meters added . . . .		212	15
Meters now in use . . . .		3,839	406
Motors and elevators in use,		518	21

# CIVIL ORGANIZATION OF THE WATER-WORKS, FROM THEIR COMMENCEMENT TO JANUARY 1, 1892.

## WATER COMMISSIONERS.

NATHAN HALE,† JAMES F. BALDWIN,‡ THOMAS B. CURTIS. From May 4, 1846, to January 4, 1850.

## ENGINEERS FOR CONSTRUCTION.

JOHN B. JERVIS, of New York, Consulting Engineer. From May, 1846, to November, 1848.‡

E. S. CHESBROUGH, Chief Engineer of the Western Division. From May, 1846, to January 4, 1850.‡

WILLIAM S. WHITWELL, Chief Engineer of the Eastern Division. From May, 1846, to January 4, 1850.

## ENGINEERS HAVING CHARGE OF THE WORKS.

E. S. CHESBROUGH, Engineer. From November 18, 1850, to October 1, 1855.‡

GEORGE H. BAILEY, Assistant Engineer. From January 27, 1851, to July 19, 1852.

H. S. MCKEAN, Assistant Engineer. From July 19, 1852, to October 1, 1855.‡

JAMES SLADE, Engineer. From October 1, 1855, to April 1, 1863.‡

N. HENRY CRAFTS, Assistant Engineer. From October 1, 1855, to April 1, 1863.

N. HENRY CRAFTS, City Engineer. From April 1, 1863, to November 25, 1872.

THOMAS W. DAVIS, Assistant Engineer. From April 1, 1863, to December 8, 1866.

HENRY M. WIGHTMAN, Resident Engineer at C. H. Reservoir. From February 14, 1866, to November, 1870.‡

A. FTELEY, Resident Engineer on construction of Sudbury-river works. From May 10, 1873, to April 7, 1880.

JOSEPH P. DAVIS, City Engineer. From Nov. 25, 1872, to March 20, 1880.

HENRY M. WIGHTMAN, City Engineer. From April 5, 1880, to April 3, 1885.‡

WILLIAM JACKSON, City Engineer. From April 21, 1885, to present time.

DESMOND FITZGERALD, Resident Engineer on Additional Supply. From February 20, 1889, to present time.

After January 4, 1850, Messrs. E. S. CHESBROUGH, W. S. WHITWELL, and J. AVERY RICHARDS were elected a Water Board, subject to the direction of a Joint Standing Committee of the City Council, by an ordinance passed December 31, 1849, which was limited to keep in force one year; and in 1851 the Cochituate Water Board was established.

## COCHITUATE WATER BOARD.

### *Presidents of the Board.*

THOMAS WETMORE, elected in 1851, and resigned April

7, 1856† . . . . . Five years

JOHN H. WILKINS, elected in 1856, and resigned June 5, 1860†	Four years.
EBENEZER JOHNSON, elected in 1860, term expired April 3, 1865†	Five years.
OTIS NORCROSS, elected in 1865, and resigned January 15, 1867†	One year and nine months.
JOHN H. THORNDIKE, elected in 1867, term expired April 6, 1868†	One year and three months.
NATHANIEL J. BRADLEE, elected April 6, 1868, and resigned January 4, 1871†	Two years and nine months.
CHARLES H. ALLEN, elected January 4, 1871, to May 4, 1873	Two years and four months.
JOHN A. HAVEN, elected May 4, 1873, to Dec. 17, 1874†	One year and seven months.
THOMAS GOGIN, elected Dec. 17, 1874, and resigned May 31, 1875	Six months.
L. MILES STANDISH, elected August 5, 1875, to July 31, 1876†	One year.

*Members of the Board.*

THOMAS WETMORE, 1851, 52, 53, 54, and 55†	Five years.
JOHN H. WILKINS, 1851, 52, 53, *56, 57, 58, and 59†	Eight years.
HENRY B. ROGERS, 1851, 52, 53, *54, and 55†	Five years.
JONATHAN PRESTON, 1851, 52, 53, and 56†	Four years.
JAMES W. SEAVER, 1851†	One year.
SAMUEL A. ELIOT, 1851†	
JOHN T. HEARD, 1851†	One year.
ADAM W. THAXTER, Jr., 1852, 53, 54, and 55†	Four years.
SAMPSON REED, 1852 and 1853†	Two years.
EZRA LINCOLN, 1852†	One year.
THOMAS SPRAGUE, 1853, 54, and 55†	Three years.
SAMUEL HATCH, 1854, 55, 56, 57, 58, and 61	Six years.
CHARLES STODDARD, 1854, 55, 56, and 57†	Four years.
WILLIAM WASHBURN, 1854 and 55†	Two years.
TISDALE DRAKE, 1856, 57, 58, and 59†	Four years.
THOMAS P. RICH, 1856, 57, and 58†	Three years.
JOHN T. DINGLEY, 1856 and 59†	Two years.
JOSEPH SMITH, 1856†	Two months.
EBENEZER JOHNSON, 1857, 58, 59, 60, 61, 62, 63, and 64†	Eight years.
SAMUEL HALL, 1857, 58, 59, 60, and 61†	Five years.
GEORGE P. FRENCH, 1859, 60, 61, 62, and 63†	Five years.
EBENEZER ATKINS, 1859†	One year.
GEORGE DENNIE, 1860, 61, 62, 63, 64, and 65	Six years.
CLEMENT WILLIS, 1860†	One year.
G. E. PIERCE, 1860†	One year.
JABEZ FREDERICK, 1861, 62, and 63†	Three years.
GEORGE HINMAN, 1862 and 63	Two years.
JOHN F. PRAY, 1862†	One year.
J. C. J. BROWN, 1862	One year.
JONAS FITCH, 1864, 65, and 66†	Three years.
OTIS NORCROSS, *1865 and 66†	Two years.
JOHN H. THORNDIKE, 1864, 65, 66, and 67†	Four years.
BENJAMIN F. STEVENS, 1866, 67, and 68	Three years.
WILLIAM S. HILLS, 1867	One year.
CHARLES R. TRAIN, 1868†	One year.
JOSEPH M. WIGHTMAN, 1868 and 69†	Two years.
BENJAMIN JAMES, *1858, 68, and 69	Three years.
FRANCIS A. OSBORN, 1869	One year.
WALTER E. HAWES, 1870†	One year.

JOHN O. POOR, 1870 . . . . .	One year.
HOLLIS R. GRAY, 1870 . . . . .	One year.
NATHANIEL J. BRADLEE, 1863, 64, 65, 66, 67, 68, 69, 70, and 71† . . . . .	Nine years.
GEORGE LEWIS, 1868, 69, 70, and 71† . . . . .	Four years.
SIDNEY SQUIRES, 1871† . . . . .	One year.
CHARLES H. HERSEY, 1872 . . . . .	One year.
CHARLES H. ALLEN, 1869, 70, 71, and 72 . . . . .	Four years.
ALEXANDER WADSWORTH, *1864, 65, 66, 67, 68, 69, and 72 . . . . .	Seven years.
CHARLES R. MCLEAN, 1867, 73, and 74† . . . . .	Three years.
EDWARD P. WILBUR, 1873 and 74 . . . . .	Two years.
JOHN A. HAVEN, 1870, 71, 72, 73, and 74† . . . . .	Five years.
THOMAS GOGIN, 1873, 74, and 75* . . . . .	Three years.
AMOS L. NOYES, 1871, 72, and 75 . . . . .	Three years.
WILLIAM G. THACHER, 1873, 74, and 75† . . . . .	Three years.
CHARLES J. PRESCOTT, 1875 . . . . .	One year.
EDWARD A. WHITE, 1872, 73, 74, 75, and 76†† . . . . .	Five years.
LEONARD R. CUTTER, 1871, 72, 73, 74, 75, and 76† . . . . .	Six years.
L. MILES STANDISH, 1860, 61, 63, 64, 65, 66, 67, 74, 75, and 76†† . . . . .	Ten years.
CHARLES E. POWERS, *1875 and 1876† . . . . .	Two years.
SOLOMON B. STEBBINS, 1876† . . . . .	One year.
NAHUM M. MORRISON, 1876† . . . . .	One year.
AUGUSTUS PARKER, 1876† . . . . .	One year.

\* Mr. John H. Wilkins resigned Nov. 15, 1855, and Charles Stoddard was elected to fill the vacancy. Mr. Henry B. Rogers resigned Oct. 22, 1865. Mr. Wilkins was re-elected Feb., 1866, and chosen President of the Board, which office he held until his resignation, June 5, 1860, when Mr. Ebenezer Johnson was elected President; and July 2 Mr. L. Miles Standish was elected to fill the vacancy occasioned by the resignation of Mr. Wilkins. Otis Norcross resigned Jan. 15, 1867, having been elected Mayor of the City. Benjamin James served one year, in 1858, and was re-elected in 1868. Alexander Wadsworth served six years, 1864-69, and was re-elected in 1872. Thomas Gogin resigned May 31, 1875. Charles E. Powers was elected July 15, to fill the vacancy occasioned by the resignation of Mr. Gogin.

† Served until the organization of the Boston Water Board.

†† Deceased.

## BOSTON WATER BOARD,

*Organized July 31, 1876.*

TIMOTHY T. SAWYER, from July 31, 1876, to May 5, 1879; and from May 1, 1882, to May 4, 1883.

LEONARD R. CUTTER, from July 31, 1876, to May 4, 1883.

ALBERT STANWOOD, from July 31, 1876, to May 7, 1883.

FRANCIS THOMPSON, from May 5, 1879, to May 1, 1882.†

WILLIAM A. SIMMONS, from May 7, 1883, to Aug. 18, 1885.

GEORGE M. HOBBS, from May 4, 1883, to May 4, 1885.

JOHN G. BLAKE, from May 4, 1883, to Aug. 18, 1885.

WILLIAM B. SMART, from May 4, 1885, to March 18, 1889.

HORACE T. ROCKWELL, from Aug. 25, 1885, to April 25, 1888.

PHILIP J. DOHERTY, from March 18, 1889, to May 4, 1891.

THOMAS F. DOHERTY, from Aug. 26, 1885, to May 5, 1890; and from May 4, 1891, to present time.

ROBERT GRANT, from April 25, 1888, to present time.

JOHN W. LEIGHTON, from May 5, 1890, to present time.

## ORGANIZATION OF THE BOARD FOR YEAR 1891.

*Chairman.*

ROBERT GRANT.

*Clerk.*

WALTER E. SWAN.

*City Engineer and Engineer of the Board.*

WILLIAM JACKSON.

*Water Registrar.*

WILLIAM F. DAVIS.

*Deputy Collector and Clerk, Mystic Department.*

JOSEPH H. CALDWELL.

*Superintendent of the Eastern Division of Cochituate Department.*

DEXTER BRACKETT, to June 1 (resigned).

WILLIAM J. WELCH, from June 1.

*Superintendent of the Western Division and Resident Engineer of Additional Supply.*

DESMOND FITZGERALD.

*Superintendent of Mystic Department.*

EUGENE S. SULLIVAN.

† Deceased.

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